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ABSTRACT

This source book provides guidance and technical assistance material on utilizing forest, agricultural, and scenic and wildlife resources for rural economic development. The document focuses on the uniqueness of existing rural resources for new enterprise opportunities. Natural resource-based economic development strategies are a means to diversified development, improving upon one-industry dependency, a problem generic to rural areas. The intent of the publication is to help local leaders recouple their communities' natural-resource assets with their economic engines and thereby to strengthen, expand diversify, and add value to their natural resource-based enterprises. The information is presented on each subject in a question-answer format for use by community leaders in encouraging group discussions. The guidance materials were prepared on the following subjects: forest and wildlife resources in rural economic development; the forest industry park as a rural development strategy; agriculture resources in rural economic development; organizing a food industry association; and developing small-scale aquaculture enterprises. Four sections contain annotated bibliographies of technical assistance materials relevant to the given subjects and a listing of periodicals and newsletters. (TES)

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RECOUPLE

Natural Resource Strategies for Rural Economic Development

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Headquarters and main laboratories are in Kansas City, Missouri. Off-site research operations are maintained in the Washington, D.C., and Raleigh, North Carolina, areas. MRI manages and operates the Solar Energy Research Institute in Golden, Colorado, under contract to the U.S. Department of Energy.

MRI's 1,000 research and support staff combine expertise and resources to carry out projects in more than four dozen scientific and technical disciplines. Research activities include long-term multimillion dollar programs as well as smaller, short-term projects. MRI has completed more than 10,000 projects for some 4,000 clients. Current projects range from economic development to biochemical toxicology, from laboratory robotics to transient processes, from hazardous waste management to lubrication studies.

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RECOUPLE—
NATURAL RESOURCE STRATEGIES FOR RURAL ECONOMIC DEVELOPMENT

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Prepared for the

U.S. Department of Commerce
Economic Development Administration
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This publication was prepared by Midwest Research Institute. The statements, findings, conclusions, and recommendations are those of the authors and do not necessarily reflect the views of the Economic Development Administration.

PREFACE

Recouple is the fifth in a series of publications prepared by Midwest Research Institute (MRI) that resulted from research applied to the problems of rural economic development and conducted for the Economic Development Administration (EDA) of the U.S. Department of Commerce. Each succeeding project has, in part, been an outgrowth of the research that went before it. The series began with the 1987 publication *A Rural Economic Development Source Book* that highlighted technical assistance materials appropriate for rural economic development efforts. The next publication was *Profiles in Rural Economic Development* (1988), a guidebook of 65 successful or promising initiatives being undertaken by rural communities or counties in 38 states around the country. The third publication, also completed in 1988, was *Industrial Parks—A Step-by-Step Guide*. This guidebook was one outgrowth of an EDA project in which MRI assisted 10 underutilized rural industrial parks between 1987 and 1988. The fourth publication, *A Portfolio of Community College Initiatives in Rural Economic Development*, was published in 1989. Intended for use by community and technical college administrators at state and local levels and by rural economic development organizations, *Portfolio* profiles 20 local community college initiatives in rural economic development.

My special thanks go to other contributors. In Section II, Dr. Tom Monaghan, MRI consultant and leader of the Extension Forestry Department at Mississippi State University, Mississippi State, Mississippi, wrote most of the text on using forest and wildlife resources for rural economic development. Dr. Jean Mater, vice president of the Forest Products Marketing Division of Mater Engineering Ltd. in Corvallis, Oregon, was an MRI consultant and contributed all of the text on the forest industry park strategy. In Section IV, the discussion of agriculture as a rural development strategy was prepared by David Reisdorph, MRI economist. The material on forming a food industry association was prepared by Suzanne Sullivan, MRI consultant and a key organizer of the Western Massachusetts Food Industry Association. Daniel Keyes, MRI senior analyst, prepared a technical paper on small-scale aquaculture, excerpts from which were used in Section IV as well. On the production end, Alice Crews spent much of a year preparing the requests for information and then processing the bibliographic entries. And Rita Roche assisted on a daily basis with managing the many hundreds of correspondences required to bring the publication to fruition.

Finally, thanks to all those "in the field" who have helped in one way or another. You know who you are--I hope the final product is as useful to you as your assistance was to me.

Sincerely,

MIDWEST RESEARCH INSTITUTE

Margaret G. Thomas

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Senior Resource Planner

Approved:

Linda W. Thornton

Linda W. Thornton, Acting Director
Economics and Management
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ABSTRACT

Recouple is an extensive sourcebook for rural community leaders and rural development specialists as well as natural resource professionals at county, state, and federal levels. There are three sections with guidance on utilizing forest, agricultural, and scenic and wildlife resources for rural economic development. Guidance materials were prepared on (1) forest and wildlife resources in rural economic development; (2) the forest industry park as a rural development strategy; (3) agriculture resources in rural economic development; (4) organizing a food industry association; and (5) developing small-scale aquaculture enterprises. These materials are presented in a question/answer format for use by community leaders in encouraging group discussion.

There are also four sections with selected bibliographies on technical assistance materials useful in developing strategies for forest, agricultural, and wildlife resource use, plus a listing of periodicals and newsletters. The bibliographic entries were selected to present a diversity of materials; detailed annotations are presented as well as the source for each entry. Over 100 publications are referenced. There is also a cross-referencing of the entries by key subject term. Subject terms used included agricultural diversification, alternative forest enterprises, business planning, community development, conservation, cooperatives, education, exporting, feasibility analysis, financing, forest industry park, forest land management, marketing, organizing, overview, ranch business, range management, recreation enterprises, resource assessment, secondary manufacturing, tourism development, value-added agribusiness, wood products, and wildlife management.

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EXECUTIVE SUMMARY

The idea for *Recouple* evolved over the past few years. It was based on the observation that a new development approach has emerged in the rural economic development field. Empirical evidence strongly suggests it will be a key to future success for many rural areas. This approach does not seek to repeat traditional industrial recruitment strategies. It also goes beyond business expansion and retention programs. Instead, it seizes upon the uniqueness of existing rural resources to uncover new enterprise opportunities. The historical dependence on the natural resource base that is the common denominator for most rural areas--indeed, the phenomenon that makes for "ruralness"--is not regarded as a liability but rather as an opportunity.

We found that very few technical assistance materials currently exist in the "traditional" economic development literature that show rural areas how to approach local economic development with a focus on natural resource-based strategies. Too often, rural economic development technical assistance materials represent either community development strategies or simplified urban economic development materials. Using these materials, community leaders in the trade centers of rural areas pursue community development or industrial recruitment approaches while rural landowners--farmers, ranchers, and others "outside town"--find assistance elsewhere for their efforts at diversifying or adding value to their current products. The Cooperative Extension Service of the U.S. Department of Agriculture has programs in most states to assist farmers in enhancing their profitability and developing new products and services. Fortunately, many extension agents have taken a strong proactive role in community economic development as well. But even many USDA materials and approaches tend to either deliver to the land-based operator or the community leader in the trade center. There are still only a few examples where a broad perspective and consensus on rural resources and development strategies have been achieved, and where natural resource-based new enterprise development has been effectively woven into an areawide strategy.

We also found that community-based economic development organizations do not usually focus on natural resource-based strategies. It is often assumed that the "old" natural resource primary industries--agriculture, forestry, mining, fishing--are part of the rural problem. And, in one sense, they are--rural areas have paid a price for an overdependency on any one aspect of the resource base when changes in global demand, or technological change, or resource depletion have radically altered the industry and thereby the rural economy. But urban America has endured trauma from overdependency on a few industrial sectors as well. And rural communities overly dependent on a single type of manufacturing industry--textiles, for example--have been caught in the same trap. Lack of diversification--failing to support a broad base of employment and income-generating sectors--has been at the heart of the problem.

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We have also observed a disturbing barrier to growth and innovation that appears all too frequently in rural areas. The path being taken by community-based development organizations, chambers of commerce, and the economic development community all too often is separate from the "survival techniques" being tried with farmers, ranchers, and other landowners in the rural hinterlands but outside the trade centers. There is still not enough realization of the necessity to pool resources for regional development activities, and it is still relatively rare for a development group to effectively include strategies to make the most of one of the single most important physical assets of its ruralness--its natural resources.

This publication is an outgrowth of this concern. It is designed to help rural areas weave natural resource-based new enterprise development into a rural county or regional strategy for achieving economic stability and vitality.

A word of caution is needed here. Natural resources are a key asset for rural economic development. But any decision that does not take into account the need to ensure their renewability through a sustainable use strategy is indeed shortsighted. Resource conservation and management, not exploitation, are the keys to long-term sustainability of not only the natural resource base but the very fiber of our rural economies. "Ecological economics" must come to guide our decisions on our resources, and stewardship must replace development as a mission.

A rural area also should not focus on natural resource-based new business growth to the exclusion of all other strategies. What is needed is a broad-based approach. And within that broad approach, equal attention needs to go toward helping landowners organize their efforts and providing business counseling, technical assistance, and capital to potential natural resource-based enterprises. We must foster an environment in rural areas that allows small entrepreneurs to grow "in the countryside" as well as in the rural towns. To do this will require bringing a regional approach to strategic planning for economic development and weaving additional key players--the owners of the natural resource lands--more effectively into the process.

A final word about the title: MRI selected the title *Recouple* because of the increasing use of the term "uncoupling" among economists. One example of the "uncoupling" phenomenon that is often stated is in the increasing separation of the primary goods economy--chiefly agriculture products, forest products, metals, and minerals--from the industrial economy. In other words, the rise or fall of the primary goods sector seems to have little impact on the vitality of the industrial sector any more and vice versa. This is chiefly because most of the value by far is added to the primary product from further processing or management. Value-adding strategies have thus come to be viewed as critical components of rural economic development efforts. It is the intent that this publication will assist rural community leaders, public officials, development specialists, and local and regional organizations recouple their natural resource assets with their economic engines by offering the best available assistance on strengthening, expanding, diversifying, and adding value to their natural resource-based enterprises.

In summary, then, the following is a listing of the questions addressed in the text chapters. A question/answer format was chosen because it was felt to be especially appropriate for use by community leaders in rural areas who would be acting as facilitators for the new ideas. Extensive bibliographic materials are presented in each section that follows a text chapter.

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I. Introduction

I. INTRODUCTION

Rural areas are being encouraged to look at their natural resources in a new way. They are being asked to visualize regional approaches to organizing their economic development efforts and capturing more value from their forest, agricultural, scenic, and wildlife resources. This publication was prepared to help rural community leaders weave their natural resource assets into effective development strategies.

The research for this project was conducted between September 1988 and November 1989. Midwest Research Institute (MRI) sent letters to over 800 persons requesting suggestions for useful technical assistance materials on stimulating natural resource-based new enterprise development and pursuing value-added strategies in rural areas. We received more responses from the midwest and southeast than from the northeast, northwest, west, or southwest. This may have been because the crisis in U.S. agriculture has hit the midwest farm belt especially hard, prompting responses through ag diversification.

As suggestions came in, MRI located and reviewed the publications. While there are many states from which no useful materials were received, there were also many very good materials discovered that would never be found in traditional economic development literature. Those included in the bibliography were selected because they had a practical orientation and were representative of a type of material clearly useful to local community leaders in rural areas.

In general, however, we did not find exactly the publications we were seeking—i.e., "how to" publications that had a rural, regional focus and that walked the reader through a strategy-building process to add value to natural resource assets. As materials were reviewed, MRI tried to identify the most apparent "holes" in the technical assistance literature. Subjects that had relatively little practical, how-to guidance available on them were considered as possible topics for new guidance materials, to be developed as part of the project. Eventually, four subjects emerged as good candidates: a guide to rural economic development through forest and wildlife resources; the potential of forest industry parks for rural economic development; stepwise guidance on how to establish a food industry association in a rural area; and a guide to evaluating small-scale aquaculture enterprises. These and a position paper on the potential for agriculture to revitalize rural economies were selected for development.

Consultants were used to prepare three of the technical papers. Dr. Tom Monaghan of the Cooperative Extension at Mississippi State prepared the material on using forest and wildlife resources for rural economic development. Dr. Jean Mater of Mater Engineering Inc. in Corvallis, Oregon, prepared a paper on forest industry parks. Suzanne Sullivan, then with the Western Massachusetts Food Industry Association, prepared a "how to" paper on forming similar organizations. Two MRI staff, Daniel Keyes and David Reisdorph, prepared a technical paper and an overview paper on aquaculture and agriculture, respectively. Major portions of these papers were incorporated into the text of Sections II, IV, and VI. Four of the papers are also available as separate documents and are listed in the bibliography.

It should be noted that several natural resource categories were not included because there was not sufficient information available on them. New enterprise development based on mineral resources, stream or river resources, or marine resources is highly possible, but additional research is needed to offer strategies. Also, some categories of rural development literature that relate to natural resource enterprises but are not specific to such enterprises were not included. Most notable are the home-based business, craft business, and entrepreneurship literature, and the broad category of community-based rural development. It was felt that quite good bibliographies already existed on such topics.

There are two types of sections in the ensuing report. Sections II, IV, and VI are text discussions on forest, agriculture, and tourism and wildlife development. Sections III, V, VII, and VIII are the bibliographic sections. Section IX is an index by institution or agency.

II. A Guide to Rural Economic Development Through Forest Resources

II. A GUIDE TO RURAL ECONOMIC DEVELOPMENT THROUGH FOREST RESOURCES

As we move toward the 21st century, rural areas will find it more difficult to compete with metropolitan centers for jobs and industrial development. Yet, much of our population lives in rural America. We must investigate new ways of tapping the resources of our rural areas.

However, our efforts cannot be guided by a single resource or even groups of resources. Our nation is diverse in its people and in its land and resources. Soil types, topography, climatic conditions, forest and grassland cover, mineral deposits, and population densities of humans and wildlife all vary from community to community, county to county, and state to state. It is this diversity that creates a competitive advantage for some areas through the wise use of their natural resources.

This section provides the basis for community leaders to fully consider their areawide opportunities involving forest resources. And, if opportunities exist, it provides suggestions for efficiently moving toward capturing more of the value of these resources through wise development decisions.

WHY SHOULD A RURAL AREA PURSUE FOREST RESOURCE DEVELOPMENT?

Put simply, there is great untapped potential on our rural forest lands, especially our privately owned forest lands. Forest resource management and conservation have increasing potential as part of a rural region's economic development strategy.

Few rural leaders and development specialists realize that 58 percent of the nation's commercial forest land is held or managed by private nonindustrial forest (PNIF) landowners.[1] These PNIF landowners are made up of business and professional people, blue collar workers, farmers, retirees, and many other individuals who could be identified as part of the general population. PNIF land does not include corporate land holdings such as major timber companies.

PNIF ownerships provide more than 43 percent of the total harvest of timber in the United States.[2] This means that private landowners already benefit from a majority of the U.S. timber production--currently estimated at $20 billion--since rural landowners own most of the timber land and rural people harvest most of the timber.[3] In addition, forest industry and wood processing facilities already employ many rural people, and wood processing firms are responsible for major capital investments with positive economic impacts for local communities. The point is that forest resource utilization is already an important business in many areas, and it should be regarded as an existing business to be retained and expanded where possible, just like any other existing business.

The expansion possibilities for forest resource businesses are reflected in projected demand. Harvests of softwood timber (such as pine) on PNIF lands are projected to increase more than 25 percent between now and the year 2000 and by 45 percent by the year 2020. Hardwood timber harvests on PNIF lands are expected to increase more than 40 percent between now and the year 2000 and by more than 80 percent by the year 2020.[4] Timber harvesting on public lands such as national forests is becoming increasingly restricted because of environmental restraints.

Lands owned by the timber industry will not be able to provide the wood products necessary to carry us into the 21st century.[5] The combination of increasing domestic demand and international demand points to a bright future for PNIF ownerships provided that forest resources on these lands are properly managed and conserved. So it makes sense from a strategy perspective to look hard at forest lands when building a rural revitalization strategy.

HOW CAN WE BOTH DEVELOP AND CONSERVE OUR FORESTS—AREN'T THESE MUTUALLY EXCLUSIVE?

One of the most important characteristics of our forests are their renewability. This is important to economic development because under proper management a forest can provide a sustained supply of raw material for processing. Forests can also provide a variety of products. The primary products of a forest are not limited to trees. Instead, they can include pulpwood, sawtimber, poles, pilings, posts, plywood bolts, and many others. Species diversity provides even more variety among the primary products of a forest. For example, softwood (pine, spruce, fir, etc.) sawtimber may be used for housing construction, while hardwood (oak, maple, poplar, etc.) may be used for furniture. Forest land can be managed and harvested to supply specific products to meet specific needs.

And the primary products of a forest are not just trees. Renewability is also a positive characteristic of wildlife resources. The future of our wildlife resources is directly related to our land. And the health of our major game species is particularly related to the way we use our forest land. Through proper management, wildlife resources can be perpetually renewed. In some cases, wildlife resources can provide income to landowners from hunters as well as from nonconsumptive users of wildlife.

Timber and wildlife in combination are unique in that resources can be produced at the same time on the same acreage, but with products of different value in demand by different people. The timber is a valuable raw material for sustaining industrial production and output, whereas the wildlife is valuable for the recreational benefits that it can provide. Many of the same practices that are used to increase wood production also favorably impact wildlife. Research has shown that forest land managers are able to sustain good populations of major species and at the same time provide satisfactory levels of timber production.

An entire section on wildlife-based recreation is included with tourism development later in this publication, so we will defer questions on wildlife to that later discussion.

HOW ARE FOREST RESOURCES LOCATED FAR FROM THE TRADE CENTER GOING TO HELP PEOPLE IN TOWN?

The potential benefits from forest management, use, and conservation to rural communities--their landowners, timber harvesters, processing plant work force, and other secondary businesses--can be greater than the benefits from other traditional economic development enterprises. This is because of the linkages between wood product suppliers and producers.

Let's take an example. Suppose you establish a small industrial park and recruit a shoe factory to locate in your area. The immediate and most prominent effect will be increased employment for local people. However, the raw material required to produce the end product may not come from local sources. On the other hand, suppose you establish a small forest industries park, with secondary wood processing firms. The wood products industries will likely utilize local raw materials. In fact, transportation costs usually dictate a local source. Both the primary and secondary producers benefit. Forest resource development provides jobs directly in the processing facility. But additional jobs in forest and land management, timber harvesting, transportation, and possible wholesale and retail outlets are created through a "spillover" effect. Few other kinds of development benefit more different groups in a rural area in as many ways as does timber-based development.

WHAT ABOUT "VALUE ADDED?" IS THIS CONCEPT IMPORTANT FOR FOREST-BASED ENTERPRISES?

Value added is a useful measure of the economic contribution of an industry to a state or region. For any firm or industry, value added is obtained by subtracting the costs of all materials, supplies, fuels, energy, and sales from the value of shipments or outputs. Within the timber industry, value added is basically the difference between the cost (or value) of the primary wood product (such as logs) and the value of the final product produced from the logs.

Value added represents the dollars available for wages, salaries, interest payments, profits, taxes, and depreciation. From an economic perspective, then, value added is important because it represents the total contribution of a segment of manufacturing to the overall economy of an area.

The more a forest product is processed, the more valuable the product becomes, and the greater the value added to the economy. This can be illustrated by a simple example of a thousand board feet (MBF) of logs. Following harvesting and transportation to a sawmill, let us assume one MBF of logs is worth $200. After being sawed into lumber at the mill, the lumber from these same logs might be worth $750. The value added by processing the logs into lumber is $550 per MBF. This $550 represents wages to the sawmill labor force, profit to the company, local taxes, and other benefits to the local economy. If the lumber was further processed into furniture parts, wooden toys, or other products, the value added would again be increased.

If improved technology were to allow the sawmill in the above example to produce more high-quality lumber from an MBF of logs, value added would again increase. Laser technology, for example, has provided opportunities to increase the yield of high-grade lumber from logs. The same $200 worth of logs might produce lumber worth $900. Value added, therefore, would be increased from $550 to $700 through production efficiency.

HOW DO WE KNOW HOW MUCH ECONOMIC DEVELOPMENT POTENTIAL WE HAVE IN OUR FOREST RESOURCES?

To answer this question, it is critical that you get assistance. This is the most important aspect of economic development through forest resources for two reasons:

1. You must rely on local and state assistance to help identify options. Options will vary from community to community, county to county, and state to state. The right local

experts will be able to identify local variables and to recommend courses of action that will avoid pitfalls.

2. You do not want to reinvent the wheel. By contacting the right people, you can find out what others have done and make sure you do not spend a lot of time gathering information that has already been compiled.

Also, keep in mind that there are several sources of assistance, and each source provides a different kind of information. Do not stop after you've contacted only one or two sources of assistance. There are many sources, and each has its own particular role and responsibility.

WHOM DO I CONTACT? WHAT DO I ASK THEM?

Your local county Cooperative Extension Service is a good first contact. This person, to some extent, is responsible for providing information on all aspects of agriculture, natural resources, rural development, and other related subject areas. Also, he or she likely will be able to help you identify other sources of help.

Tell the agent that you're interested in the potential for economic development of local forest resources. Ask the agent to help you initiate a local committee or task force to pursue ideas. Find out about the availability of Extension specialists or faculty from your state's land-grant university. Assistance may be available from forestry specialists, community development specialists, agricultural economists, wildlife specialists, and other "food and fiber" specialists as well as industrial technologists, engineers, and many others. At first, forestry and wildlife specialists will be the most important contacts. But they in turn will be able to identify situations that require expertise from other specialists at the university. A more detailed discussion of the sources of assistance is available in Document No. 443 in Section III. For example, appendices in that document list Cooperative Extension Service state offices.

The availability of some sources of information will vary from county to county and state to state. So you will need to check each of several possible sources to make sure that you "leave no stone unturned." These sources are your:

- State forestry agencies (Appendix B).
- U.S. Forest Service Regional Experiment Stations (Appendix C).
- U.S. Soil Conservation Service (Appendix D).
- State Forestry Association.
- Area consulting foresters.
- Regional rural development centers.

HOW DO I FIND ALL THOSE SOURCES?

Let's talk about each of these and a few other special groups.

State Forest Agency

Let's start with your state forestry agency. Most state forestry agencies were originally developed for forest fire protection and to assist private landowners with management and reforestation. In some states the state forestry agency is called the "Forestry Commission." In other states the forestry agency is administered under a state "Department of Natural Resources," "Department of Agriculture," "Land Department," "Resources Agency," etc. While the name of the organization may vary, the state forestry agency is generally administered by a state forester. This person will have a few or several staff specialists located in the state office, possibly one or more district offices located in another part of the state, and perhaps some county offices.

The availability of state forestry agency personnel varies widely, depending on the extent of the forest resources in your area of the state. Ask for help at the local level if it's available. Often one professional may serve a multicounty area.

If you have difficulty locating a state forestry agency person, contact the state office headquarters. A list of state forestry agency offices is provided in Appendix B.

U.S. Forest Service

The direct involvement of the U.S. Forest Service with your economic development endeavors is likely to be limited. Its primary purpose is the management and administration of publicly owned national forests. However, the U.S. Forest Service does cooperate with private landowners through the various state forestry agencies. Your contact with your state forestry agency representative should be sufficient to involve the U.S. Forest Service.

There is one situation, however, where the U.S. Forest Service may be able to provide some valuable information. In certain locations throughout the country there are U.S. Forest Service offices that serve as headquarters for Forest Survey Units. You will see in Appendix C the kind of information that is available through forest surveys. However, you do not have to contact the Forest Survey Unit offices directly in order to obtain this information. Some other organizations such as the Extension Service and the state forestry agencies should be able to assist you in accessing this information.

U.S. Soil Conservation Service (SCS)

Most counties have a local SCS district office, and a local district conservationist will likely be available. The SCS provides data and technical information on soil and water conservation through the local conservation districts to land users in rural areas. The district conservationist can also help you access expertise from the state office. State staff specialists may include foresters, wildlife biologists, engineers, etc. A list of state SCS offices is provided in Appendix D.

State Forestry Associations

If forestry plays a major economic role in your state, there is probably a forestry association. The membership will include both private industries and individuals. The association will likely be under the direction of an executive director. The state forestry association will typically have substantial information on forest industries already located in each state.

The association may be a critical outlet for publicizing or promoting your efforts to expand the development of natural resources. They may be able to focus attention on your area. They are usually active in supporting the organization of local forest landowner groups. They promote the development of the forest industry and would likely be aware of barriers to such development. Such barriers include state tax laws or legal requirements that could hamper your efforts in certain kinds of resource development.

Consultants

If you have a substantial forest resource in your area (in private, nonindustrial ownership), you will likely have a number of consulting foresters as well. Consulting foresters are self-employed professionals who provide various services to landowners on a fee basis. The clientele of a consulting forester may range from small, private, nonindustrial owners to a large corporation.

A consulting forester's time is money. However, many consultants may be willing to serve on a committee because stimulation of forest development is to their economic benefit. They may be exposed to potential clients through your area's effort to improve its economy through forest resource development.

You should be able to obtain a list of forestry consultants through some of your previous contacts with the Extension Service or the state forestry agency. Otherwise, check the phone book. Since they are in private business, they may likely advertise in the Yellow Pages or will at least use the word "forestry" or "resources" in the title of their business.

Private Landowners

Involve landowners who have shown leadership in adopting management practices in cooperation with the agencies already on your committee. Local agency personnel can easily identify local landowners who can make positive contributions to your committee's endeavors.

Later in this chapter we will discuss how groups of landowners may be used to help implement ideas. If landowner groups already exist, involve their officers as soon as possible.

Rural Development Centers

The four regional rural development centers provide support to the Extension Service and their research staffs in their respective regions as they respond to rural development needs in local communities. Specifically, the centers (1) serve as focal points for collection, interpretation, analysis, and dissemination of rural development information; (2) disseminate research findings through conferences, workshops, seminars, and various publications; (3) provide training opportunities at regional and subregional levels; (4) provide limited funding for research and development of programming ideas; and (5) serve as the regional liaison between extension research personnel and land-grant institutions and other regional agencies and organizations concerned with the development of rural areas.

Here is a list of the four rural development centers and their locations:

North Central Regional Center for Rural Development
216 East Hall
Iowa State University
Ames, IA 50010
515-294-8322

Northeast Center for Rural Development
104 Weaver Building
Pennsylvania State University
University Park, PA 16802
814-863-4656

Southern Rural Development Center
P.O. Box 5446
Mississippi State University
Mississippi State, MS 39762
601-325-3207

Western Rural Development Center
315 Extension Hall
Oregon State University
Corvallis, OR 97331
503-754-3621

Tennessee Valley Authority

If your community is located within one of the 125 Tennessee Valley Authority (TVA) watershed counties, TVA could be an important source of assistance. Since its creation in 1933, TVA has been concerned with resource development and cooperation with farm families and the agencies that serve them. The area served by TVA includes all of Tennessee, northeast Mississippi, north Alabama, north Georgia, western North Carolina, southeastern Kentucky, and southwest Virginia.

Cost-sharing competitive bid opportunities may be available through TVA's Agricultural Institute (AI). The AI has funded projects to help promote economic growth and protect the natural environment through development of sustainable agricultural opportunities within the region. Major thrusts of AI are to develop jobs and income in target areas, to develop alternatives in related industries, to test and introduce emerging technologies, and to protect the natural environment. Forest resource development is certainly within the realm of opportunities for which TVA assistance is available.

If you are located within the TVA area, information and assistance are available from Tennessee Valley Authority, Division of Land and Economic Resources, Forest Resources Development Program, Norris, TN 37828-2000.

Other Sources

Once you get the point of industrialization within the field of wood products, the technical assistance necessary is the same as with any other industry. Factory automation, transportation systems, quality control, residue handling, marketing strategies, etc., are common problems for manufacturers regardless of the raw material. General guidelines or recommendations for assistance should be made for all economic development ventures.

It is appropriate that local economic development committees keep in mind the availability of industrial technology assistance from various sources. State governments provide such assistance through departments of economic development and industrial extension services affiliated with universities.

WE ALREADY HAVE AN ECONOMIC DEVELOPMENT ORGANIZATION. DO I NEED TO FORM ANOTHER ORGANIZATION TO LOOK AT FOREST RESOURCES?

Not necessarily. The existing organization should look at all of its resources in any deliberations aimed at economic development, and forest resources can be part of your area's overall plan. But a committee to study economic development for forest resources will probably be necessary, since you can spend your time more efficiently if a group with similar interests and expertise is able to deliberate on a limited agenda. Since forest and wildlife resources are so interrelated, if tourism and wildlife-based recreation are part of the development strategy, your committee may want to consider them both at the same time.

HOW SHOULD OUR COMMITTEE GET STARTED?

You should start with the local sources of assistance that we have already discussed. You probably will want to talk to them individually and later follow up by writing letters to each individual and/or to their supervisors or the heads of their agencies. Recruit members by whatever means work best, and allow your first members to have immediate input in selecting additional members. Your early committee members will probably have direct knowledge of other experts or resource people who could contribute a great deal to your committee's activities.

The first item of business after you've developed your forest and wildlife resources membership list is to arrange for a first meeting. Identify some objectives for the meeting in advance, and make sure everyone understands what you're attempting to do. Your first order of business should be to assemble some information on your resources, because your findings will determine your strategy. It will be important to assign definite responsibilities for this information-gathering phase, establish deadlines for submitting the information back to the committee, and document the business of the meeting with a good set of minutes, mailed immediately to all of the members following the meeting.

WHAT KINDS OF FORESTRY INFORMATION WILL WE NEED?

Certainly your committee will have some of its own ideas of important data that are necessary for its deliberations. The following is a list of data that may prove useful:

1. Commercial timber acreage. Acreage within the county or within a multicounty area that corresponds to the economic development organization's service area is going to

be needed. Getting these data by species or forest type or by age classes is even more useful. In some situations the data may be needed within a fixed radius area or a variable radius area.

2. Timber ownership patterns. The acreage and percent distribution of publicly owned, industry-owned, and private, nonindustrially owned forest land will be needed.

3. Timber volumes. Volume by species, ownership category, and--if available--by product class and quality would be desirable.

4. Timber growth. Growth data by species and land ownership and also data showing growth trends over time are important.

5. Timber mortality and drain. Losses, by species and ownership, plus trends over time should be known.

6. Wood-using industries. The number of industries in the area, their products and competitors, and current and projected wood consumption should be documented.

ONCE I KNOW ABOUT MY FOREST RESOURCES, IS THIS ALL I NEED TO DEVELOP A PLAN?

No, there are many related questions that will need to be answered as you begin to consider forestry's potential for economic development. Some of these questions will be obvious to anyone who has dealt in the area of economic development. Others may not be quite so obvious.

1. Proximity to population centers. Obviously, you have already considered this as an opportunity for some economic benefit to your rural community. As with many other enterprises, the population centers are where much of the demand for your resources will originate.

2. Proximity to markets. Markets for forest products may or may not be associated with population centers. Railroads, waterways, and highways are major considerations in forest products transportation and marketing systems.

3. Other demographic data. Are there any unique characteristics about the people within the population centers near your rural area? Find out as much as you can about the population to which you will be marketing.

4. Transportation systems. What transportation systems are available in your area? This is an important consideration in development of secondary wood processing industries. Transportation access may dictate the type of industries that you are able to attract.

5. Demand for potential products or services. In some cases population and demographic information may not directly translate into demand for products, particularly if the products and services are unique to the area. As you speculate on possible economic development activities, you may find the need for more structured market survey research to determine potential demand.

6. Soil types and productivity potential for alternative crops. If you are considering land use enterprises with specific soil requirements, be certain you find out if those soil types exist in your area. Often soil types and soil productivity play a major role in determining the success of alternative land uses.

I'M FEELING OVERWHELMED! WHERE CAN I OBTAIN ALL THESE DATA?

This is where your committee begins to function. If the information is available, members of your committee should be able to obtain almost everything you need. Keep in mind that the data we have listed so far are only examples. Your committee members may suggest other data that are important to your specific situation in your area of the country. Following are some examples of data sources and how the source might vary in certain situations.

1. Various forestry-related statistics for your county (timber volumes, acreage, ownership, and other data) should be available from your local state agency forester or a University Extension Forester. These data originate from the U.S. Forest Services' forest inventory and analysis units (discussed in Appendix C). Local state agency foresters will likely have access to these published inventory data, but if not, they will be able to help you access the information by contacting the Forest Inventory and Analysis Office which covers your state.

2. Demographic data should be available from several sources including the Extension Service, Chamber of Commerce, and others. Much of the data will originate from national sources such as the Department of Commerce, etc.

3. Soils data will be available through the USDA Soil Conservation Service. Soil survey reports are published for many counties in the United States. These reports include information on productivity potential for various crops and trees.

4. Assistance on marketing information and feasibility studies should be available from state economic development offices, the Cooperative Extension Service, and university departments and centers. If not direct assistance, at least good referrals to other community development organizations should be available from these sources.

5. Assistance on production and management of various crops, products, and resources will be available from your state department of agriculture.

SOME OF THIS INFORMATION SOUNDS COMPLICATED. WHO IS GOING TO HELP ME INTERPRET IT?

The same people who help you acquire the data should be able to help you interpret it. However, do not rely on just one interpretation. For example, your state forestry agency may help you acquire forest survey data for your area, but a wood utilization specialist from your state university may be better trained to interpret the significance of the data to your county and community. Both positive and negative aspects of the data should be identified as they are reviewed by the committee.

WHAT KINDS OF GROUPS COULD BE USED TO IMPLEMENT OUR COMMITTEE'S IDEAS?

There are a number of organizational arrangements that have made great contributions to forestry (and wildlife recreation on forest lands) and could promote resource development and conservation in your area.

1. County associations. The best example is a county forestry association or county forest landowner association. Collectively, groups of landowners controlling large acreages can provide some credibility to your assurances of the availability of raw materials to prospective industries. Many southeastern states in particular have well-functioning county groups of forest landowners and other supporters of forestry. These groups can contribute a great deal to the promotion of better forest management. In some cases these groups are affiliated with state forestry associations. They will always be interested in ideas to add value to the local forest resources.

2. Landowner cooperatives. There are many examples of farmer cooperatives that have been developed to market various crops throughout the country. Formation of landowner cooperatives to promote and market forest products or wildlife recreational opportunities is a strategy worthy of consideration. Individual forest landowners with relatively small acreages may not be able to attract timber buyers because the volume of wood involved is not significant. Collectively, however, the volume of wood from many owners may be large enough to supply a wood yard or other type of wood processing plant.

   If your community is made up of many small acreage ownerships, you should consider organizing a forest landowner cooperative. A cooperative allows the landowner members to collectively have a sufficient supply of certain wood products to attract the attention of markets. The organization of the cooperative can be a very loose or restrictive arrangement, but all landowner members should be willing to make some specific commitment of certain wood products from their land. Total timber volume data can be determined by a professional forester. Scheduling of harvest with proper forest management principles can allow cooperative representatives to have a certain guaranteed supply of wood to use as leverage in contacting wood products companies.

3. Land management aggregates. Aggregation of small ownerships can create economies of scale in implementing forest and wildlife management practices. Management aggregates may be part of a landowner cooperative.

   Aggregating many small ownerships into one large contiguous block opens many opportunities.

   a. Land can be managed more efficiently.

   b. Hunter access and law enforcement (e.g., for poaching problems, etc.) can be more easily controlled.

   c. Aggregates can justify consulting services by forest and wildlife management professionals. Small acreage owners can benefit from professional advice and assistance that they otherwise could not afford.

d. Large acreages are generally more valuable and in more demand for leasing and fee hunting.

A land management aggregate is a concept similar to a landowner cooperative. Aggregates can be a very flexible approach to managing small ownerships to enhance timber and wildlife production. All landowners within the area must be willing to participate, and local leadership within the group is critical to its success.

4. Industry "clubs." This concept probably originated as a means of spreading information within the furniture industry. But it is applicable to a variety of situations. The concept is basically a series of regular meetings for producers with similar interests. Furniture manufacturers, for example, would be involved in a furniture club. Outdoor recreation entrepreneurs might be involved in a recreational business club. The meetings would be designed to transfer new information from various sources to the producer.

   Obviously, new technology is vital to economic development. The opportunity for value-added investments can be enhanced through technology transfer. Industry clubs offer the opportunity to identify potential investments for additional processing of certain wood products by existing industries. Clubs could be the route to greater production efficiency through improved management, personnel management, quality control, machinery maintenance, raw material procurement, publicity, and safety. Holding meetings at the local level will provide opportunities for smaller producers and the labor force of larger employers to attend educational meetings that they would otherwise never attend. This concept could provide a valuable communication link between university level researchers and grass-roots level producers.

WHAT WOULD BE EXAMPLES OF PROJECTS OUR COMMITTEE COULD UNDERTAKE WITH THESE ORGANIZATIONS?

Let us consider a few examples, beginning with the most ambitious--a forest industry park.

You should know that the rural area with a forest resource has a distinct advantage in the industrial location contest. Transportation costs dictate that wood-based industries should locate as close to the forest resource as possible. They also need to locate as close to their markets as feasible, especially those that make industrial or consumer products, the so-called "secondary manufacturing" industries. The rural area that has proximity to both resource and markets has a tremendous advantage. A forest resource adequate for a potential forest processing plant is the most important attraction to this business. Your local industrial development organization needs to be armed with data on the available forest resources--timber species quantity and quality, forest ownership, forestry practices regulations, experienced wood industry labor availability, and similar considerations. But the availability of the forest resource alone does not ensure that an industrial plant will locate in your area. There may be a dozen areas in several states that meet the resource qualification. You need an additional feature to position your area to be the one selected for a new industrial wood-based plant.

Some communities have selected the establishment of a forest industry park as the method for giving their area a unique competitive advantage. The forest industry park is a strategy used to expand employment and to substantially increase the number of jobs available to local residents. The forest industry park strategy also can serve to maintain existing jobs and to assist local industries to expand without relocation. They offer unusual opportunities for creative and innovative combinations of industry and cooperation among businesses to gain advantages of scale in residue utilization, marketing, and processing.

WHAT IS A FOREST INDUSTRY PARK?

A forest industry park is an industrial property in which most or all facilities are used for manufacturing wood-based products. The property is under a coordinated management; usually the forest industries located in the park are individually owned and managed. The individual businesses may be owned by a sole proprietor, partnership, corporation, or cooperative. In some forest industry parks the industries own the land on which their factories are constructed; in others, the industries are tenants. Another feature of a forest industry park is that the infrastructure--roads, utilities, grading, etc.--is in place before businesses are located.

Some other designations for the same type of park are wood products industrial park, wood park, and wood industrial park. Whatever the designation, wood processing is the heart and purpose of the park.

Many types of forest industries can be located in a forest industry park; appropriate industries depend upon the specific objectives of the park. Some forest industry parks include the primary log breakdown process, which converts logs to lumber or by-products, such as chips. Other forest industry parks are devoted to secondary processing--the manufacture of industrial or consumer wood-based products from lumber. These secondary products might include any of almost 1,000 products that use wood--from popsicle sticks to prefabricated houses. Some forest industry parks specialize in one wood product--for example, a wood furniture park.

The manufacturing plants are frequently small or medium-sized businesses. Some may be branch plants of large multifaceted wood industries. The facilities may require large capital investments, such as Waferboard or other wood products that are reconstituted from wood chips or strands of wood.

The manufacturers in many of the forest industries parks have a symbiotic relationship: they each benefit from the presence of the other factories or businesses located in the park. A manufacturer of upholstered furniture would benefit from location in the same forest industry park as a manufacturer of wood frames for use in upholstered furniture. A modular home manufacturer would purchase moulding, millwork, paneling, and siding from a dimension manufacturer located in the park. A forest industry park may also include services for manufacturers in the park, i.e., computer specialists, saw filers, maintenance facilities, testing laboratories, equipment manufacturers, special research institutes.

HOW DOES A FOREST INDUSTRY PARK DIFFER FROM OTHER INDUSTRIAL PARKS?

Ordinary industrial parks may have a mix of industries, utilizing diverse raw materials and producing diverse products. There may be no common thread that binds these industries. A forest industry park, on the other hand, houses industries with a common raw material and often with a synergistic relationship among the facilities in the park. A fiberboard facility might separate sawlogs from the timber supply and sell them to the sawmill. The forest products plants in the park create wood residues in manufacturing their products. The residues, in turn, may become raw material which the fiberboard plant uses to make panels. The fiberboard plant, in turn, sells panel products to a kitchen cabinet manufacturer located in the park.

A forest industry park also provides an ideal location for a network of manufacturers who supply parts to a plant that assembles, warehouses, and markets a consumer product. A park may have a manufacturer that makes hardwood turnings for a furniture manufacturer, a hardwood dimension manufacturer which supplies other finished wood components for assembly by that furniture manufacturer, a furniture hardware supplier, and others who provide parts to the producer of furniture with a national distribution. The furniture manufacturer assembles the parts, warehouses furniture, and markets the finished items.

The forest industry park also can provide economies of scale by making feasible the handling of larger volumes than an individual plant can manage. Systems such as shared warehousing and cooperative purchasing can be used to effect these economies of scale.

A forest industry park differs from so-called "business incubator parks" by providing the special conditions required for the success of forest-based industries. Incubator parks are facilities that house numerous start-up companies--which may or may not be in similar businesses--and provide them with basic business services and management consulting. Their goal is to ensure business success, create new jobs, and diversify local economies. A forest industry park can also serve as a business incubator if basic business and consulting services are furnished to tenant businesses. Business incubators often utilize large buildings that are left empty when older industries move out or close down.

WILL A FOREST INDUSTRY PARK HELP ATTRACT NEW FOREST INDUSTRIES TO THE AREA?

A forest industry park does help attract new forest industries to the area. A company searching for a location to construct a manufacturing plant usually has plans for a start-up time to take advantage of a market, or a trend. Time is important, and time is one significant factor that a forest industry park saves. In many areas land use permits of one kind or another for locating a plant usually take considerable time. Acquisition of property may be time-consuming. Obtaining environmental compliance permits from state regulatory agencies may also take considerable time. Most of these factors can be addressed in developing the forest industry park, greatly facilitating plant start-ups.

Construction time for manufacturing facilities can be considerably reduced if a forest industry park is ready and available, with access roads, utility hookups, permits, and other infrastructure in place. The park can also be designated an Enterprise Zone in some states, thereby offering tax benefits for new enterprises.

A great advantage of a forest industry park is that it can make small plants economically feasible and induce them to locate in the area. A plant that requires dry lumber, for instance, might not find the installation of a dry kiln feasible. A dry-kiln operation in the forest industry park could turn a negative feasibility analysis into a positive one. A process that generates considerable residue might not be feasible if a use for that residue did not exist in the park.

WHAT HAS BEEN THE EXPERIENCE OF OTHER RURAL COMMUNITIES IN DEVELOPING A FOREST INDUSTRIES PARK?

We should not leave the impression that all forest industry parks succeed; many have not, and some are slow to succeed. (Success is defined as an occupied park earning revenue from ongoing industrial activity.)

WHAT HAVE BEEN THE BARRIERS TO SUCCESS?

Forest industry parks do not succeed when the component enterprises are not integrated with each other, or when the component industries are not successful businesses. These businesses would fail in any location, largely because they are not effectively managed and do not have marketing skills.

Other reasons for the failure of some forest industry parks are as follows.

- The forest industry park is constructed at the time of a cyclic industry downturn.

  The sawmill segment of the forest industry is subject to cyclic downturns when the construction industry slows. If the forest industry park waits to get on-line and ready for tenants or sale of the land, it may find itself in a recessionary period, in which it may be difficult to attract new industries to the area. Some forest industry parks have been vacant for several years before they obtain industries. Including secondary manufacturing industries in the park may decrease the impacts of a slowdown in the construction industry, the major traditional market for lumber.

- The forest industry park is constructed before an "anchor tenant" is obtained.

  At least one substantial manufacturing firm should be secured for the park before construction is undertaken. A stable firm creates a favorable business climate, which attracts other industries.

- A key plant of the forest industry park is not available.

  A forest industry park with several secondary wood products manufacturing plants requires lumber that has been dried to a specified moisture content. A primary sawmill in the park might turn out only rough green lumber. If a dry kiln for removing the moisture from the lumber is not constructed at the same time, the secondary manufacturers will not have the required dry lumber and may be forced to purchase lumber from outside the park. They would then lose one of the economic advantages promised by the park concept.

- Small business tenants that fail to meet sales projections and operate with poor management practices go in and out of business, leading to instability of forest industry park income and a poor business climate.

  Many managers of small wood industry businesses may have the technical know-how for processing lumber into products, but they often have neither the time nor the experience in business management to handle necessary details. They also frequently lack marketing experience and marketing know-how and have little time to adequately focus on all aspects of the business.

- The group organizing the forest industry park has not done its homework.

  The timber resource may not be adequate. Local citizens groups may object to a particular manufacturing concern because they fear particulates or odors that will be emitted into the air. The hazardous waste plan may not be fully developed. The plans may not have included a facility which uses wood residues from processing in an area where local landfills already have no available room.

Many of these typical problems might be avoided by proper planning and by community involvement and market research in the planning stage. The industry mix should be targeted to provide the essentials necessary for the forest industry park. These essentials include:

- Loggers who will harvest timber and cut logs to the sizes required by the primary log breakdown plants. In some areas, for example, most timber is cut into 100-inch bolts and transported to the pulp or waferboard mills. If a manufacturing plant requires bolts of another length, say 102 inches, will the local loggers cut to that special size?

- A concentration yard where lumber from small mills can be stored in sufficient quantity to fill orders from brokers and graded to standard sawmill grades. In an area where there are many small sawmills, the marketing of lumber products is a major problem because individual mills do not produce sufficient volumes of lumber to "grade" according to accepted standards, nor do they have the warehouse room to store large quantities of graded lumber.

- Another critical factor in operating primary and secondary wood processing plants is provision for utilizing waste wood. The cattle industry claims it utilizes every part of a cow but the "Moo." With the high cost and scarcity of timber from the forests today, the forest industry must utilize every part of the tree, including the "bark." A very important feature of a wood industry park is the synergy among park industries to utilize the wood residues produced from sawing, cutting, and ripping and other activities in making wood products. Pieces of lumber not suitable for furniture or cabinets or other "appearance" uses can make "furnish" for a pallet mill. Sawdust and bark and other small residues can provide the fuel for wood-fueled boilers that can, in turn, heat the park and produce steam for the dry kilns to dry the lumber. In some instances, the boilers can also produce enough steam to generate the power for the wood industry park. The sawdust and gleanings from the secondary plants, including the pallet plant, are added to the fuel for the wood boilers.

HOW WILL A FOREST INDUSTRY PARK ENCOURAGE THE BEST UTILIZATION OF THE LOCAL FOREST RESOURCE?

The best and highest utilization of the local forest resource is desirable to maintain a vigorously growing forest. Timber is a renewable natural resource and provides a stable base for economic activity if properly managed. A healthy forest requires the appropriate regular harvest of trees to maintain productivity. Trees are harvested when they can be utilized. A forest industry park stimulates the necessary utilization of the harvested trees by providing facilities for processing logs and manufacturing products from the lumber. Increased employment opportunities and revenue for both the industry and the community result from the production of wood products of maximum value.

Many regions have abundant hardwood--and softwood--timber resources which can serve as a base for economic growth through the combined opportunities of a forest industry park. More diversified and better integrated companies provide the necessary opportunities for the utilization of the entire log rather than only the high grades. Other areas, faced with diminishing timber availability, may be able to increase or stabilize employment by attracting secondary manufacturing to a forest industry park.

HOW WOULD A FOREST INDUSTRY PARK IMPROVE THE ECONOMY OF THE AREA?

There is little question that a successful forest industry park will improve the economy of the area. First of all, it will increase and stabilize employment. For example, one feasibility study for a wood industry park based on a 5 million board feet scale (a board foot is the standard measuring unit for logs and lumber) showed a projected employment of 175 production employees and 27 supervisory employees in the primary and secondary manufacturing industries located in the park. The projected annual payroll was almost $4 million. Using a 2.5 "multiplier" which computes how many indirect jobs will be created in the community for every direct job, the total employment gain would be about 500 jobs. This would be a sizable boost for any rural community!

The forest industry park would also increase the property tax base of the community. One example was a forest industry park which provided very low-cost land for construction of a sizable manufacturing plant in a vacant forest industry park built by the county. County officials determined that adding the unused facility to the tax base was a good investment for the county.

The products produced in a forest industry park would stimulate the local economy by providing some items which otherwise would be purchased from outside the area. It also brings new money into the area by making products that are sold outside the area. "Export" products--products which are marketed outside the area in which they are manufactured--boost the local economy. The export may be to another region, another state, or another country.

WILL A FOREST INDUSTRY PARK HELP KEEP MORE OF THE VALUE-ADDED PROCESSING OF THE LOCAL FOREST RESOURCE IN THE AREA?

There is considerable discussion nowadays about keeping more of the value-added processing of the local forest resource in the area rather than exporting local logs out of the region. A forest industry park helps keep more of the value-added processing in the local area. Value-added processing benefits the community by providing opportunities for increased utilization of the local timber resource. It also encourages wood industries to locate in the park by providing ready access to raw material supplies and markets. The lumber and other commodity products produced by the primary processing plants in the park become the raw material for secondary processing, increasing the efficiency and profitability of both primary and secondary operations. Raw material transportation costs are minimized and purchased at considerable savings compared to open market purchases.

Many areas lose employment and revenue opportunities because most of the logs extracted from the timber in their area are shipped either to another region, another state, or another country for processing. Each step of processing adds value to the log.

Adding value creates jobs and revenue where the processing takes place. For example, hardwood logs may originate from Pennsylvania's forests. But the Pennsylvania residents in that logged area get minimum benefits from their timber if most of those logs are transported to North Carolina for conversion to lumber and ultimately to furniture. Most of the resulting jobs and revenue accrue to North Carolina. Value added to the processed lumber may be as much as $25 for North Carolina for each $1 of the value of the raw log in the Pennsylvania community. A forest industry park helps keep value-added processing in the local community.

WOULD A FOREST INDUSTRY PARK HELP AN EXISTING WOOD PRODUCTS BUSINESS?

A major impediment to operating a successful wood products business is the lack of marketing know-how and the lack of time for essential marketing activities. Business managers, especially those managing small businesses, wear many hats. They supervise log or lumber purchasing; supervise production, accounting, maintenance; and when they have time after coping with daily emergencies, handle marketing. Marketing includes product promotion, selling, distribution, proper pricing, and other time-consuming functions. Even when they know what to do in marketing their products, they usually lack the opportunity to carry out the required activities. A forest industry park can overcome many of the obstacles facing small wood products businesses by organizing a cooperative purchasing and marketing sales organization. The cooperative sales organization can provide professional services in meeting market needs and setting up a finished products warehouse which can centralize some of the shipping functions and distribution services of the cooperating manufacturers. A cooperative marketing organization is considered an essential element of a successful forest industry park.

WHO MIGHT PROVIDE THE FUNDING TO CONSTRUCT THE PARK?

Funding for a forest industry park and the industries that locate in the park may come from federal government sources, state government programs, regional and local funding groups, and, of course, private sources. Sometimes the county and local chamber of commerce provide funding, pooling federal and state funds to complete the financing package.

Federal funding sources include the following:

- U.S. Small Business Administration (SBA) loan programs, including guarantees and limited direct loans. The SBA also licenses Small Business Investment Companies (SBICs) and Minority Enterprise Small Business Investment Companies (MESBICs) to provide equity and venture capital to small firms. SBA-guaranteed bank loans and debentures also are the foundation of Local Development Companies (SBA Section 502) and Certified Development Companies (SBA Section 503).
- Urban Development Action Grants (HUD) are available for distressed cities. U.S. Department of Commerce Economic Development Administration (EDA) grants are available for qualifying EDA redevelopment areas.
- The Farmers Home Administration (FMHA) guarantees and insures loans for nonurban areas with populations under 50,000, a classification into which most rural areas fall.

State sources. Many state programs are available for funding new or expanding enterprises, prodded by the intense competition for new industries to provide employment and revenue. Every state has designed its own package of incentive programs. Usually a state agency--an economic development department or a development authority--administers the programs. State incentives include direct loans, industrial development pool funds, tax-exempt industrial revenue bonds, and special programs to encourage specific types of industries. Some of these economic development funds may use lottery proceeds.

Private sources include the following:

- Private entities often invest in industrial parks to stimulate the local economy. The local chamber of commerce, or association of businesses, or an ad hoc local industrial development group may pool their resources to finance a forest industry park. They may pool funds with the public development agency to construct an access road, extend city utilities, or provide whatever construction is necessary to make the park "salable." Businesses usually active in instigating and promoting an industrial park are state power companies (examples: Wisconsin Public Service Corporation, Pacific Power and Light), railroads, banks, and similar organizations interested in stimulating the local economy.

- Other private sources of capital are private banks, Venture Capital companies, insurance companies, and pension funds.

- Individuals may invest in stock offerings or make direct loans. And, of course, large forest industry companies with an interest in developing suppliers of lumber or wood parts may also be a source of financing.

Local and regional organizations. Local and regional public development organizations are the keys to successful financing of a forest industry park. These organizations usually secure the financing for infrastructure improvements and site acquisition, make the necessary applications, and coordinate the efforts to launch a forest industry park. These organizations can take the form of a public/private partnership. An example is the funding of the site acquisition by the local county and funding of the infrastructure by a private development group such as the chamber of commerce members or an industrial development group organized for the purpose.

Initiation of a forest industry park often involves a community decision. Attempts by investors and public organizations to ignore community input and wishes on establishing an industry park frequently result in sharp division of opinion, spelling disaster to the project. There may be compelling technical and economic reasons for locating an industry park on a particular site, but if the developers ignore the wishes of the neighbors who have chosen to live in that area "to get away from it all" and object to industry as a neighbor, you can count on trouble brewing. Environmental concerns, antigrowth attitudes, and large numbers of economically secure retirees who have little interest in job creation may jeopardize the project. There are methods for easing the concerns of neighbors. The earlier in the planning process developers recognize and address these concerns, the more successful will be their efforts to obtain community consensus.

Experienced communities and developers become realistic about the risks of funding a forest park. Sometimes the park takes many months or even years to bear fruit. A forest industry park may experience losses from tenants who go in and out of business before signing up stable anchor tenants. Counties have been known to practically give away the land and improvements in order to attract an industry. The industries then become taxpayers, and the counties feel they can recoup their investment in the forest industry park over the years.

WHO WOULD MANAGE A FOREST INDUSTRY PARK?

A forest industry park begins with a real estate project. Land must be acquired, developed--that is, made ready for construction and operation of manufacturing facilities--and parcels sold or leased. Readiness for construction and operation includes grading, roads, sewerage, utilities, power, and other basic necessities for plant operation. Acquisition of land in many areas means petitioning for industrial zoning designation or petitioning for variances of existing designations. Some areas may have rigid and specific specifications limiting the size and utilization of buildings. For example, an area in which the forest industry park is to be located is zoned for "light industrial," which frequently by definition excludes primary manufacturing such as a sawmill. The concept of the industrial park as a vertically integrated operation--starting with the raw material produced by the sawmill and processing the lumber from the mill to industrial or consumer products--would immediately run into difficulties if a zoning variance was not obtained in the initial site acquisition.

The forest industry park may be managed by public or private entities. A city or county or economic development region may invest in the park as a method for stabilizing local employment and revenue. The local planning department, public works, or other appropriate department may then undertake the management functions of the park. Often, the public entity engages the services of a community development director or industrial development manager to handle the industrial park project. Financing could come from public funding programs or a combination of public and private funds.

Establishing a forest industry park, while a major undertaking, is only the first step in ensuring a successful venture. If the park is fortunate enough to secure several established wood industry companies as anchor tenants, the wood industry park probably will be self-perpetuating. A new forest industry park may organize a management unit to alleviate problems that often occur in a forest industry park. The management corporation can improve the probability of success of a forest industry park by providing "incubator" services for new small industries. These services can include plant design and layout, feasibility studies for plant and product development, budget and financing, personnel management, and other developmental functions. Routine managerial services could also be supplied such as a central telephone system, centralized secretarial and accounting services, etc.

A key to success of a forest industry park is the integration of the tenant industries to produce and utilize the raw material. The management corporation could focus on obtaining and maintaining industries that fit into the vertical integration model.

One model for a forest industry park includes an independent marketing organization which would provide marketing services for the small businesses within the park. Small manufacturers with limited time and financial resources usually cannot devote the time and money to seek domestic and foreign markets and provide the marketing services required in the current segmented and targeted competitive market. A marketing organization can close this gap.

You have undoubtedly noted that the degree of cooperation required to make these organizations work is sometimes difficult to develop among independent forest industry entrepreneurs. A strong management organization should be able to overcome these difficulties.

WILL A FOREST INDUSTRY PARK HELP SMALL AND START-UP COMPANIES?

A forest industry park can offer special advantages for small and start-up companies. Two immediate benefits are:

- A concentration of lumber. In both hardwood and softwood manufacture, "green" lumber must be dried to specifications before it can be utilized to make furniture, cabinets, prefabricated homes, millwork, and other secondary wood products. Drying facilities for handling about 5 million board feet of lumber annually cost at least $1 million. Five million board feet is quite a substantial volume in most of the eastern hardwood areas, and most smaller mills cannot justify an investment of $1 million for the purpose of drying. In a forest industry park, the primary log breakdown mill can concentrate the raw material and enjoy economies of scale. The secondary industries located in the park can purchase dried lumber and enjoy the advantages of availability and low transportation costs.

- A concentration of wood waste that makes beneficial utilization economically and technically feasible. The process of manufacturing lumber and wood products produces large volumes of wood residues. A sawmill with a cutting capacity of 5 million board feet a year might produce in excess of 22,000 tons of wood residue. Disposal of these residues in landfills has become prohibitively expensive in some areas. The concentration of residue makes a residue processing plant of some type feasible. Residue may be used to generate steam for the dry kiln or electricity for the park; it might be used to prepare horticultural mulch or for the manufacture of charcoal, or even particleboard.

The forest industry park benefits small and start-up industries and also provides benefits of technical value to the community. In some instances, the concentration of wood residues permits the economic generation of heat and electricity for the nearby town. It also relieves local waste disposal problems by facilitating utilization of the residue instead of dumping it in the nearest landfill. These benefits are all in addition to the employment and revenue opportunities from the park. Another benefit of the park is the "multiplier effect." For every direct job created in the park, there are at least two or more indirect jobs that result from the businesses that serve the direct park employees: banking, insurance, retail, grocery, barbershops, and similar personal services. All these services keep money circulating in the local economy.

CONSIDERING THE INVESTMENT REQUIRED FOR THE PARK, COULDN'T WE ATTRACT FOREST INDUSTRY PLANTS JUST AS WELL WITH INDIVIDUAL PARCELS THAT MIGHT BETTER MEET SPECIALIZED NEEDS?

A developed individual parcel of industrial land offers advantages of flexibility and independence that many companies prefer. Unless the parcel of land is very large, constructing roads and bringing in utilities to an individual development probably would not offer the same economies of scale, nor would it offer the close synergy of compatible businesses.

A forest industry park offers certain advantages over a number of individual sites in a community:

- More efficient utilization of development personnel and capital investment.
- Economies of scale in promotion and maintenance of the park.
- Opportunities for forest industry park tenants to gain purchasing advantages from doing business with each other.
- Opportunities to use one property manager to handle several properties.
- Opportunities for cooperative marketing services.
- Opportunities to share incubator business services, decreasing the costs of individual start-ups.
- Opportunities for small business to provide raw materials and services for large tenants.

On the other hand, developing a forest industry park is likely to require more capital investment than developing an individual parcel of land. If the community provides major funding for the park development, it assumes more risk than in developing an individual site. The community must weigh the cost/benefits of each decision.

WHAT PRINCIPAL FACTORS WOULD A COMPANY CONSIDER IN DECIDING TO LOCATE IN A FOREST INDUSTRY PARK?

Whether locating in an individual site or a forest industry park, companies weigh certain criteria in determining where to locate. Siting criteria include:

- Adequate space in the park to accommodate immediate needs and expansion plans.
- Adequate raw material resources, preferably low-cost species appropriate for the intended use. This could mean an adequate supply of timber for the primary log breakdown sawmill or adequate lumber, wood chips (or particles), or semi- or completely machined wood components for secondary plants.
- Available steam and electricity at competitive rates.
- Highway and rail access and favorable transportation rates. An example is the selection of a site by a manufacturer of wood novelties--after being wined and dined by numerous communities--primarily on the basis of state regulations that permit larger truckloads on state highways.
- Available sewer and water at favorable rates.
- A surplus of skilled and semiskilled labor.
- A community that supports business activity.

- Recreation, communication, business services (i.e., adequate saw filing shops for the wood industry), education, banking, and insurance.

- Community "ambience." Conditions that make a community a nice place to live are assuming more importance in choosing a site for some companies than the availability of natural resources or markets.

- Often the existence of similar industries in the area, not necessarily in the forest industry park, ensures prospective tenants that the timber resource and available labor mix are suitable for their facility.

Primary log breakdown facilities, such as sawmills, have different priorities than secondary industries. Primary breakdown plants may require more power and highly skilled labor. Secondary plants may employ more women with basic skills. Meeting the demands of a large female work force may be made easier by providing child care services in the park. Several small businesses can cooperatively support a day-care center that would be prohibitively costly for a single smaller business.

HOW MUCH LAND DOES A FOREST INDUSTRY PARK REQUIRE?

The land requirements of a forest industry park depend upon the mix of industries occupying the forest industry park. Examples:

- A 200-acre forest industry park which includes a sawmill operation, dry kilns, solid wood panel/remanufacturing facility, Medium Density Fiberboard (MDF) plant, and a furniture manufacturer. (See Figure 1.)

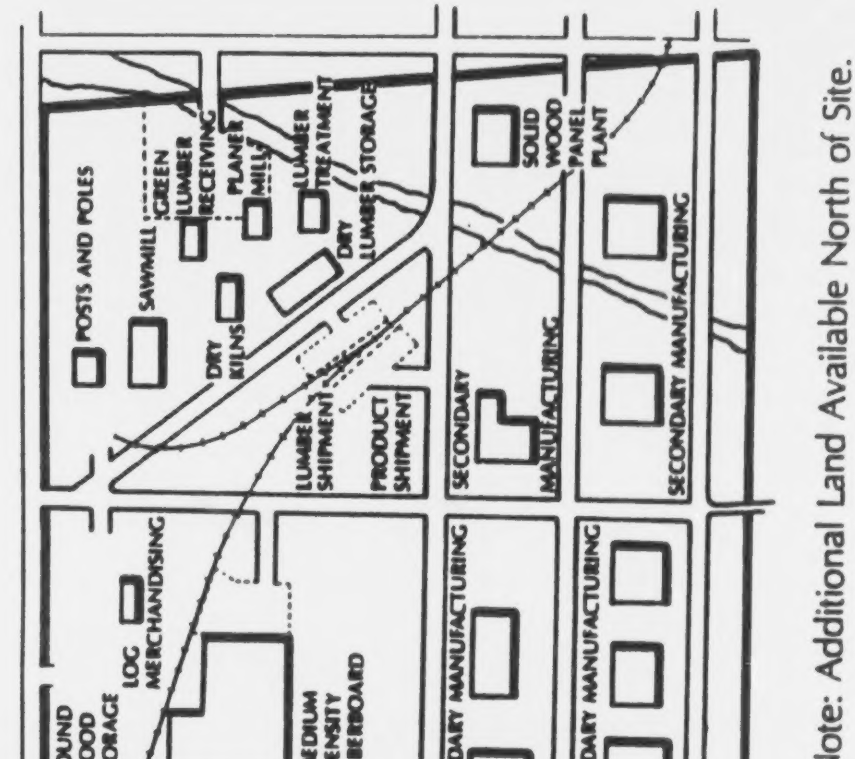
- A 25-acre forest industry park which includes a sawmill with a capacity of sawing approximately 5 million board feet a year, a dry kiln, a small blank and dimension plant, a millwork plant, a cabinet factory, a door and window factory, and a wood furniture plant. (See Figure 2.)

- A 180-acre forest industry park with a sawmill, a log concentration yard and log merchandising system (to sort logs), a lumber concentration yard, a dry kiln, a trimmer and planer mill, a panel plant, a hog mill (to process wood residue), a boiler/steam operation, and secondary manufacturing plants--a remanufacturing plant, a furniture and cabinet manufacturer, a veneer manufacturer, and a pallet plant.

WHAT TYPE OF WOOD INDUSTRIES COULD LOCATE IN A FOREST INDUSTRY PARK?

A large variety of primary and secondary industries are appropriate in a forest industry park. Some of these are:

- A sawmill primary plant to break down the logs to green lumber and/or "cants" (thick pieces of lumber flat on two sides). The sawmill may saw hardwoods or softwoods, with a capacity of as little as 1 million board feet a year to 50 million or more board feet annually. (For eastern hardwood plants a 5 million board feet mill is large. For western softwoods, a mill cutting 5 million board feet a year is very small.)


POSTS AND POLES
SAWMILL
GREEN LUMBER RECEIVING
PLANER MILL
LUMBER TREATMENT
DRY LUMBER STORAGE
DRY KILNS
LUMBER SHIPMENT
PRODUCT SHIPMENT
SECONDARY MANUFACTURING
SOLID WOOD PANEL PLANT
SECONDARY MANUFACTURING
ROUND WOOD STORAGE
LOG MERCHANDISING
MEDIUM DENSITY FIBERBOARD
SECONDARY MANUFACTURING
SECONDARY MANUFACTURING
N

Note: Additional Land Available North of Site.

Figure 1. Layout of a 200-acre forest industry park.

Source: Wood Industrial Park Brochure, Hibbing,Minnesota 1984

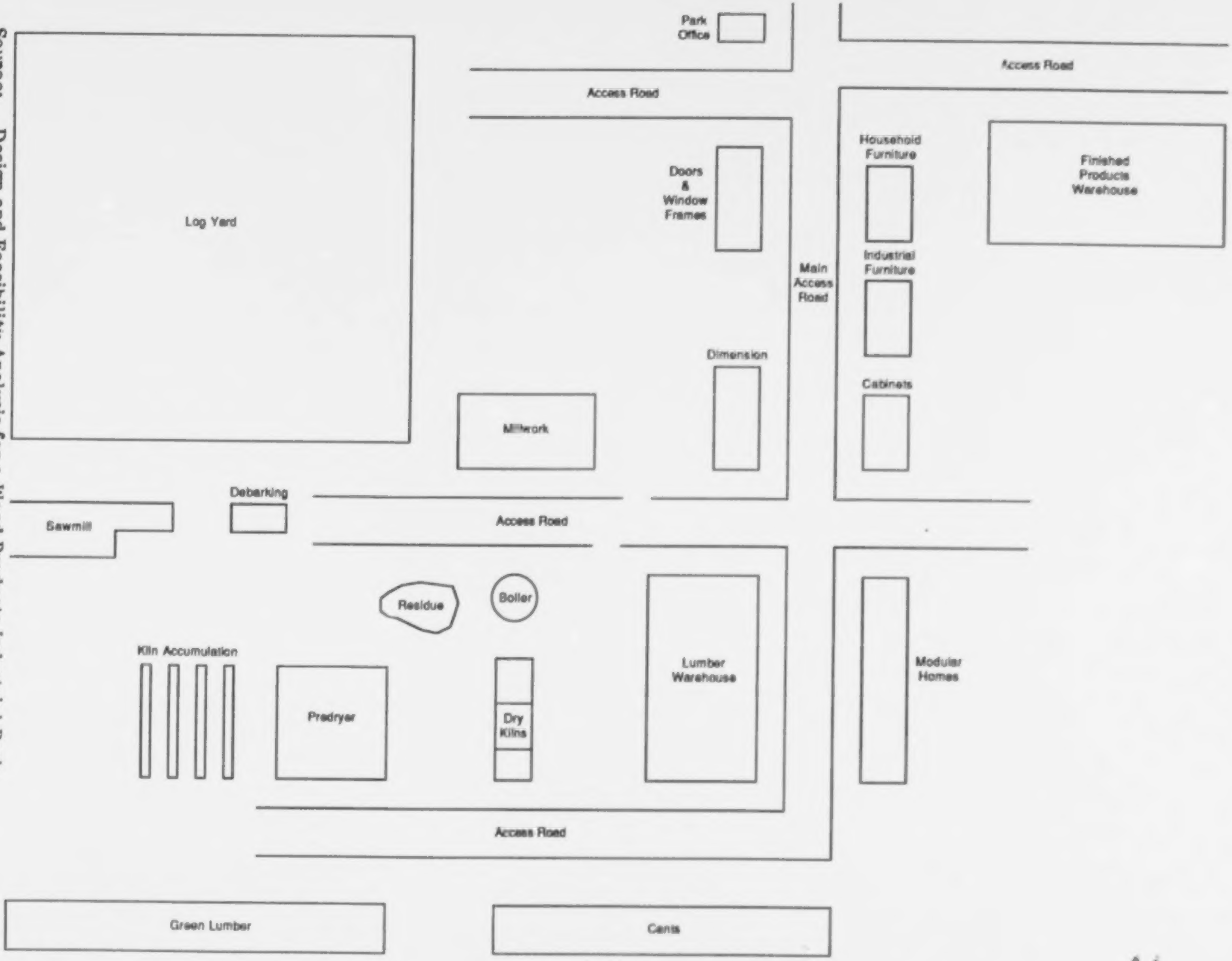

Park Office
Access Road
Access Road
Log Yard
Doors & Window Frames
Household Furniture
Finished Products Warehouse
Main Access Road
Industrial Furniture
Dimension
Cabinets
Millwork
Debarking
Sawmill
Access Road
Residue
Boiler
Kiln Accumulation
Predryer
Dry Kilns
Lumber Warehouse
Modular Homes
Access Road
Green Lumber
Cants

Figure 2. A 25-acre forest industry park.

Source: Design and Feasibility Analysis for a Wood Products Industrial Park, West Virginia University, July 1988.

- A plant to manufacture "reconstituted" panel products: Waferboard, Medium Density Fiberboard (MDF), Oriented Strand Board (OSB), and similar products made from wood chips, wood wafers, or strands, which may be residues from primary and secondary manufacturing. These boards are used in making furniture, cabinets, and interior products.
- A dry kiln to dry the green lumber to acceptable dryness for making wood products.
- A facility to manufacture solid wood paneling and siding to be used for interior or exterior residential, commercial, and office structures.
- A "millwork" plant to manufacture moulding and decorative edge-trim for new home construction, repair, and remodeling.
- A facility to produce "turnings" and semifinished parts for fireplace mantels, staircases, and furniture parts.
- A dimension plant to produce dimension parts for kitchen and bathroom cabinets and furniture parts. These parts may be made from solid lumber or from narrow pieces of lumber "edge-glued" to make blanks.
- A millwork plant to make door and window frames or complete doors and windows.
- A furniture manufacturer to make solid wood furniture for households, industries, and offices.
- A plant that cuts logs to make veneer, which may be used to put a high-quality face on lower-quality wood used in furniture, doors, windows, or wall panels; or the veneer may be used to make plywood.
- A factory to manufacture prefabricated houses.
- A factory to make popsicle sticks, tongue depressors, or chopsticks.
- A manufacturing plant to produce equipment for wood products producers.
- A research facility to conduct basic or applied research on new wood products or composite products or product testing.

These are but a few of the possible types of plants that may locate in a forest industry park. The best combinations of industries for a successful park are those that can serve each other, use each other's products, and enjoy the economies of scale created by the proximity of several compatible industries.

HOW WOULD WE FIND TENANTS FOR THE PARK?

Securing tenants or site purchasers for the forest industry park is a methodical process which could take many months. The time required is a function of the degree of preparation and, to a considerable extent, of the state of the economy.

A forest industry park development organization might first be formed. The organization functions to pave the way for tenants. It is this organization that commissions the original studies to determine:

- The available wood resource potential for the area.
- A feasible site for the park.
- The appropriate mix of wood processing and support facilities.
- The feasibility of waste-utilization facilities, i.e., a cogeneration facility to sell steam and electricity to park facilities.
- Required costs and financing packages necessary to attract new industries to the area.
- Marketing and technical services which can be made available.

Armed with the information developed from these studies, the development organization then proceeds to market the forest industry site. The studies completed above will suggest target industries or segments of industry which may become "customers" of the park. The development organization first prepares a brochure with information that can be circulated to prospective tenants.

A typical brochure may range from 5 to 20 pages and may include:

- An attractive cover.
- A map showing the location of the park.
- An introductory letter or letters to prospects from the governor, county commissioner, mayor, or other appropriate officials.
- The table of contents.
- A description of the site and services available: power, steam, water, sewer, gas, and transportation network.
- Wood resources: nearby commercial timber supply (species and grades) and availability; wood residue availability and prices.
- Project financing packages available: enterprise zone designations, tax credits, bond programs, state and federal programs.
- Labor resources: quantity, quality, training services, types, skills.
- Applicable federal, state, and local environmental regulations: Environmental Assessment requirements, Air Emission Facility Permit, Solid and Hazardous Waste Permit, Water Quality Permit, and Application Procedures.

The facility may be promoted through advertisements in appropriate trade or general periodicals, direct mail, booths at trade shows of the target industries, person-to-person visitations, and other standard promotion techniques.

WOULD WE NEED TO MAKE CONCESSIONS TO INDUCE A COMPANY TO LOCATE IN THE PARK?

Concessions are a method of differentiating your forest industry park from similar parks. If your original studies focus on the advantages of locating in your park, concessions may be minimal. If the competition for a new industry is intense, for example, if the prospect has the choice between your park and a forest industry park in an adjacent area with the same timber resources, utility costs, labor pool, transportation, and other benefits, you may need to "sweeten the pot."

You might offer the first six months or year rent-free; or you might offer to provide the required engineering feasibility studies for location of a particular industry at little or no cost. Joint venture financing and assistance in negotiations with representatives of public utilities and state agencies concerning land, services, taxes, and government regulations are other types of concessions that may be provided.

The concessions may be minimal or substantial, depending on the enthusiasm of the prospect and whether the park is located in a seller's market or a buyer's market.

ALL RIGHT, I UNDERSTAND THAT A FOREST INDUSTRY PARK IS ONE POSSIBLE STRATEGY. BUT WHAT ARE SOME LESS AMBITIOUS STRATEGIES OUR ORGANIZATION COULD UNDERTAKE?

There are many more modest strategies than pursuing a forest industry park. Your organization could work to:

- Enhance current timber production.
- Strengthen local marketing.
- Organize for pine straw production.
- Promote shiitake mushroom production.
- Encourage Christmas tree production.
- Develop more forestry vendor services.
- Promote formation of tree seedling nurseries.
- Organize for firewood production and marketing.
- Promote market diversification to specialty wood products.

1. Enhance current production. Research has shown that most private nonindustrial timber land is producing at approximately 60 percent of its potential.[6] One simple problem among PNIF owners is the lack of constructive forest management, particularly adequate regeneration. Simply improving productivity, while not a "quick fix," is important to economic development in rural areas. Such a program could accomplish several things:

   a. Landowners will benefit because the greater volume of timber they grow, the more they will have to sell. In some cases, improved regeneration practices result in the difference between virtually no timber sales within the lifetime of the owner to frequent sales that realize substantial income per acre.

   b. More intensive management and conservation activities on forest lands create a demand for vendor activities. Equipment operators (for site preparation), tree planters, timber harvesters, forestry consultants, and others will eventually have additional work. In some cases, the amount of work involved will be sufficient to create many additional jobs.

c. The long-term benefit could be the attraction of new wood industries as a result of increased availability of raw materials. This would allow you to add value to the forest resource.

d. Increased forest management activities typically utilize federal and state cost share funds, thereby transferring these funds back into the rural economy.

e. Dollars generated by increased activity from all the above sources will multiply within the local community.

f. Applied management and conservation techniques are beneficial to many species of wildlife. As wildlife habitat improves, value of the land for wildlife-related recreation increases.

2. Strengthen local marketing. If a raw material or primary product is available in your area, it should be promoted and marketed. What you have in your community may be a well-kept secret to those outside the area. Your area may deserve to be on someone's list of prospective industry sites.

   First you have to determine what you have to promote. Your natural resource committee must have developed good information on forest resources and wildlife resources of the area to proceed on new market expansion. Does your area have certain attributes that would be attractive to resource-based industries? This information should be organized and "packaged" so that it can be used as part of your promotional brochure.

   Put your committee to work brainstorming about potential recipients of this promotional brochure. Examples include forestry associations (state and national), forest products associations, major industries, and other investors. If the brochure is well written and has credibility, it may get your area on someone's prospective industry site list. This is really all you can ask.

3. Organize for pine straw production. In some areas of the southeastern United States, pine straw production has become a multimillion dollar business. Southern or longleaf pine (*Pinus palustris*) deposits a layer of pine needles each year on the forest floor. Some landowners have found that they can substantially increase their income by selling these pine needles. In some cases, the owner harvests and markets the pine straw directly to nurseries or other retail outlets. In other cases, contract harvesters purchase the right to collect pine straw from the owner's land.

   Longleaf pine (*Pinus palustris*) has been preferred because its longer needles are more easily baled by machine. But increased demand has caused producers and dealers to look at other species. Some nursery operators indicate they can sell any pine straw they can find. The possibility of marketing pine straw from other species such as slash pine (*Pinus taeda*) vastly increases economic opportunities for forest land throughout the southern pine belt (southeastern United States). Northern and western species may provide similar opportunities.

4. Promote shiitake mushroom production. Techniques have been developed for growing several kinds of mushrooms on wood. The most success has been with the shiitake mushroom. The shiitake mushroom is growing in popularity as a fresh produce item. It is one of Japan's chief export crops; millions of dollars' worth are imported by the United States each year. The farm value of Japan's shiitake crop was more than $500 million in 1982, while the U.S. crop was worth less than $2 million.[7]

   Shiitake production may be an economic opportunity for certain rural areas if markets are available and population centers are nearby. Some landowners and even corporations are already doing a good business with shiitake production. However, it is a new enterprise, so the assumptions behind economic projections are uncertain. Market prices in 1988 were quite high ($6 to $8 or more per pound for fresh mushrooms). From the production standpoint, shiitake cultivation is new to the United States, and therefore few yield studies are complete. It is an attractive alternative because the initial investment is low compared to other enterprises. Many landowners may already have most of the equipment needed to get started. However, like all promising but untested options, it is advisable to start on a small scale and expand.

   Consumption and production of shiitake are expected to continue expanding rapidly over the next 10 years. Successful mushroom farming requires knowledge about how the mushrooms grow, and several Extension publications have been developed in recent years. Mushroom Growers Associations have also sprung up in a few states.

   An added benefit of shiitake production is the use of low-quality trees. The logs preferred for mushroom production are small and would have no value for other products. In fact, trees suitable for shiitake production would likely never grow to produce a valuable product. Without use for shiitake production, the trees would actually represent a liability to the landowner.

5. Encourage Christmas tree production. While Christmas trees are not the exciting new alternative crop they were 10 or 15 years ago, in some areas the economic potential is still quite good. If local competition is low, a rural area located near a metropolitan area may present an ideal situation for Christmas tree production.

   Christmas tree production in the United States is already a multimillion dollar business. More than 30 to 40 million trees are sold every year.[9] In some states large plantations provide thousands of trees for wholesale shipments across the country. The other extreme is a small Christmas tree farm where families can come to "choose and cut" their tree. Sometimes families prefer the choose-and-cut option because it provides the opportunity for a family outing. In the choose-and-cut operation, the small producer sells to a retail market.

   In most states Christmas tree production publications are available from the Extension Service or other agencies. Production information and cultural guidelines are widely available. The most important consideration will be marketing.

   The following questions must be considered:

   a. Are population centers near enough to provide a market?

   b. Who is currently supplying trees to adjacent population centers?

c. Are trees being shipped in from other states?

d. Are there local growers in the area?

e. Can trees be grown and shipped to adjacent population centers for a competitive price?

f. Can choose-and-cut operations be used to attract urban visitors to your community?

Christmas tree production is a labor-intensive enterprise. There may be some opportunity to provide jobs associated with cultural requirements of Christmas trees. Planting, pruning, shearing, weed control, insect and disease control, harvesting, and transportation are some of the activities involved in Christmas tree production. Some farmers have used Christmas trees as an option for keeping farm labor busy on a seasonal basis.

6. Develop more forestry vendor services. Increased levels of forest management by private nonindustrial forest landowners require effort by more than just the landowners. Most landowners have neither the expertise nor the time and equipment to perform most silvicultural practices. In addition to the expertise provided by consulting foresters and state agency foresters, additional services by vendors (private contractors) are necessary.

   Intensive forest management stimulates demand for vendors to prepare sites for planting, plant seedlings or seed, and apply other appropriate timber stand improvement practices. Local farmers may be able to use their time and labor force to start small vendor businesses to provide these services for other local forest landowners. Forest industries also use vendors for various silvicultural practices. Training for prospective vendors may be available through state forestry agencies or the Extension Service.

   Many forestry practices are seasonal activities. Tree planting, for example, is performed usually in late winter and early spring. Herbicide application is generally performed during the growing season. Site preparation is typically a summer and fall activity. Depending on how diversified a vendor becomes, the business could become a year-round activity.

7. Promote formation of tree seedling nurseries. The demand for seedlings planted by forest industry and private nonindustrial owners is generally satisfied by large public and private nurseries. Genetically improved seedlings generated through years of research, selection, and breeding are not widely available at reasonable costs. Seedlings of the major timber tree species are often sold at cost by state forestry agency nurseries, so opportunities for private enterprise are limited. However, some less common species, especially certain hardwood species, are not as widely available and are in demand.

   Some tree species are desired because of their value for producing wildlife foods. Others are valued for land reclamation or erosion control. Still others are used to replace original forest species in wetland areas disturbed by construction. Reforestation of wetlands previously cleared for row crops or pasture is creating demand for many hardwood species. The high value of recreational property has led some people to purchase abandoned farmland and reforest it with mass-producing hardwoods (primarily oaks). Hunting clubs are increasingly interested in early-producing varieties of fruit and mass-producing trees for wildlife food plantings. Federal and state construction projects (highways, strip mining, flood control projects, etc.) often require mitigation measures that include replanting original species of trees on affected areas. Strip mine reclamation projects may also create a demand for selected species of seedlings.

Tree seedling production for ornamental planting may also present an opportunity, but generally this use is supplied by existing horticultural nurseries. A tree seedling nursery is an endeavor requiring expertise and a high initial investment. Site selection, management expertise, and potential markets are extremely important considerations. However, in the right situation, the potential return could be significant.

8. Organize for firewood production and marketing. Firewood production is a viable option for landowners and dealers, especially in rural areas adjacent to suburban and urban population centers. The popularity of heating with wood has increased dramatically in recent years. A sufficient supply of the right wood and a good market can provide a worthwhile economic opportunity.

   One advantage of a firewood business is that it can be used as a forest management tool. Lower-quality trees can be removed and sold while providing better growing conditions for more valuable crop trees. A landowner can actually benefit from having firewood selectively removed from his forest land, even if he does not actually receive income from the firewood. If the low-quality trees are not removed for firewood, good management would dictate that the landowner invest some time and money in herbicides, prescribed burning, or other timber stand improvement practice.

   The landowner can select varying degrees of involvement in this activity. He or she could simply allow cutting of marked firewood trees on the property for a certain price per cord. A landowner having the time and equipment could cut firewood and market it at the roadside, or haul it directly either to homeowners or to a firewood dealer in or near a population center.

   A firewood enterprise could benefit more than just local landowners. High-volume demands for firewood could create opportunities for harvesters, haulers, and dealers, for example. A market study should be made before any major capital investment, however.

9. Promote market diversification to specialty wood products. Specialty wood products are generally an option for an existing or new secondary wood processing firms, because most of the capital investment and equipment are likely in place. Specialty wood products would include virtually anything made from wood. Wooden toys, unique wooden furniture designs, wood fencing, etc., are a few of many possible products.

   Small local secondary wood processing firms should be encouraged to study the marketplace. What kind of specialty wood products are in greatest demand? Can these wood products be produced locally (preferably using local raw materials at a lower price)? Can the product be produced without major retooling and new machinery at an existing plant (lower capital investment)? Keep in mind that value can be added by improving production efficiency. One example is a case where improved technology allows a cheaper raw material to be used to produce the same final product. Another example is increased production efficiency that provides for better utilization of the same raw material to produce more final product. Consider whether products currently being imported could be produced and sold at a lower price by a local firm. (At least one major U.S. retailer has a company policy that gives preference to a U.S. manufacturer over a foreign source if that manufacturer can produce a product for an equal cost and of equal quality and sufficient supply.) If these questions can be answered positively, you may have an idea for a new value-added opportunity in your area.

Prototypes are usually necessary before product testing. Assistance with marketing studies may be available from a variety of sources. Often university marketing students are involved in class projects in which they analyze the potential for certain products or businesses in a certain area. Be sure to check on this and other possibilities for free assistance in testing the marketplace for a new product.

There are also many enterprises associated with tourism and wildlife-based recreation that woodland owners should consider. These are discussed in another chapter of this guide.

ONCE WE DECIDE ON A NEW BUSINESS OR SERVICE FROM OUR TIMBER, HOW DO WE PROMOTE IT?

You simply promote whatever you have. We previously discussed the importance of collecting data and assessing resources. In addition to using the information for your own use or for your committee's use in looking for economic development opportunities, you will want to package this information and use it for promotional purposes.

Your rural area probably will not be able to afford but one promotional brochure. Whether you are promoting all your area's resources or just emphasizing natural resources, there are some types of information that should not be omitted. Following are some examples of important information that can be used to attract attention to your area.

1. Timber as a raw material. Standing timber may represent a valuable raw material for potential industry. However, many areas of the country have substantial volumes of standing timber. Using your community as the hub, you could list timber volumes by species, ownership, and size classes within a 50-mile and/or 100-mile radius. Readily accessible raw material in combination with other advantages may attract the attention of an industry looking for a new site.

2. Water supply. Some forest industries such as pulp and paper mills require large volumes of water on a daily basis. You can identify sites near rivers in your area that may be developed for a major industry location. Navigable waterways are also obviously important as a means of low-cost transportation. In addition to providing water for industries, rivers, streams, and lakes are natural resources that should be emphasized as recreational opportunities. Quality of life is a consideration for industries locating in new areas.

3. Wildlife and outdoor recreational resources. A promotional brochure should include information on recreational opportunities. No matter what kind of industry you are trying to attract, these resources can be used to focus attention on your area.

4. Standard economic development information. Some kinds of information are "standard fare" in most promotional documents because the information is vital. This information will not be described in detail here because better coverage is provided in other detailed economic guidelines. Following is a list that may serve as a reminder for you to investigate and include in your promotional materials. Your state may already have promotional packets and brochures that will complement and provide guidance to your local efforts.

    a. Population and demographic data
    b. Labor force
    c. Climate
    d. Topography
    e. Existing industry
    f. Educational institutions
    g. Research facilities
    h. Transportation
    i. State-sponsored business and industry incentives

Some states have developed promotional materials specifically related to forest products and/or natural resources. Following are some selected state agencies that may be able to provide examples of their materials.

a. **State** Alabama
Source Alabama Development Office
Address State Capitol
Montgomery, AL 36130
Materials (1) *Available Building List*
(2) *Alabama...Your Future Is Growing in Our Forest*

b. **State** Georgia
Source Department of Industry and Trade
Address 230 Peachtree Street, NW
P.O. Box 1776
Atlanta, GA 30301
Materials (1) *Georgia Is Good Business*
(2) *Georgia, A Fortune in Forest Resources*
(3) *Georgia, The State of Business Today*
(4) *Georgia, Forest Products Directory*
(5) *North Georgia Hardwoods Are Growing Profit Opportunities*

c. **State** Michigan
Source Department of Commerce
Address P.O. Box 30226
Lansing, MI 48909
Materials (1) *1837-1987, Michigan Looks Forever Forward*
(2) *Michigan Forest Products Industry*

Source Consumers Power Company
Economic Development Department
Address 212 West Michigan Avenue
Jackson, MI 49201
Materials *Why Michigan Is the Place to Be* (poster)

d. **State** Oregon
Source Economic Development Department
Address 595 Cottage Street, NE
Salem, OR 97310
Materials *The Oregon Advantage*

e. **State** Pennsylvania
Source Pennsylvania Department of Commerce, Governor's Response Team
Address 439 Forum Building
Harrisburg, PA 17120
Materials *Pennsylvania Is Hardwood Country*

Source Office of Resources Management, Bureau of Forestry
Address P.O. Box 1467
Harrisburg, PA 17120
Materials *Wood Utilization Services for Your Industry*

f. **State** Virginia
Source Governor's Office, Department of Economic Development
Address 1000 Washington Building
Richmond, VA 23219
Materials (1) *Forest Products: Virginia's Shenandoah Region*
(2) *Mountains of Hardwoods: Virginia's Southern Mountain Region*

g. **State** West Virginia
Source Governor's Office of Community and Industrial Development
Address Director of Industrial Development
State Capitol
Charleston, WV 25305
Materials (1) *Development Incentives*
(2) *West Virginia, U.S.A., A Growing Source of Quality Hardwood*

Certainly many other state agencies and organizations have developed similar materials for promotion of forest products and/or economic development. These are just samples. Contact these and as many other states as possible for additional samples. You should be able to get several excellent ideas for local promotional activities.

Section III has many valuable references to publications that will assist your local efforts to integrate forest resources into your economic development efforts.

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APPENDIX A

STATE COOPERATIVE EXTENSION SERVICES

STATE COOPERATIVE EXTENSION SERVICES

Alabama Cooperative Extension Service, 213 Samford Hall, Auburn University,
Auburn, AL 36849-5638. Phone 205-844-5700.

Alaska Cooperative Extension Service, University of Alaska, 303 Tanana Drive,
Room WW64, Fairbanks, AK 99701. Phone 907-474-7246.

Arizona Cooperative Extension Service, University of Arizona, Forbes Building,
Room 301, Tucson, AZ 85721. Phone 602-621-7209.

Arkansas Cooperative Extension Service, University of Arkansas, P.O. Box 391,
Little Rock, AR 72203. Phone 501-373-2575.

California Cooperative Extension Service, University of California, 300 Lakeside Drive,
6th Floor, Oakland, CA 94612-80523. Phone 415-987-0060.

Colorado Cooperative Extension Service, Colorado State University, 203 Administration
Building, Fort Collins, CO 80523. Phone 303-491-6281.

Connecticut Cooperative Extension Service, University of Connecticut, Box U-66,
1376 Storrs Road, Storrs, CT 06269-4036. Phone 203-486-2917.

Delaware Cooperative Extension Service, University of Delaware, Townsend Hall,
Room 131, Newark, DE 19717-1303. Phone 302-451-2504.

Florida Cooperative Extension Service, University of Florida, 1008 McCarty Hall,
Gainesville, FL 32611. Phone 904-392-1971.

Georgia Cooperative Extension Service, University of Georgia, Room 111, Conner Hall,
Athens, GA 30602. Phone 404-542-3824.

Hawaii Cooperative Extension Service, University of Hawaii, Honolulu, HI 96822.
Phone 808-948-8234.

Idaho Cooperative Extension Service, University of Idaho, Agricultural Science Building,
Moscow, ID 83843. Phone 208-885-6639.

Illinois Cooperative Extension Service, University of Illinois, 122 Mumford Hall,
Urbana, IL 61801. Phone 217-333-2660.

Indiana Cooperative Extension Service, Purdue University, Agricultural Administration
Building, West Lafayette, IN 47907. Phone 317-494-8489.

Iowa Cooperative Extension Service, Iowa State University, 110 Curtiss Hall,
Ames, IA 50011. Phone 515-294-4576.

Kansas Cooperative Extension Service, Kansas State University, Umberger Hall,
Manhattan, KS 66506.

Kentucky Cooperative Extension Service, University of Kentucky, Ag Science Building N,
Lexington, KY 40546. Phone 606-257-4772.

Louisiana Cooperative Extension Service, Louisiana State University, Knapp Hall,
Baton Rouge, LA 70803-1900. Phone 504-388-6083.

Maine Cooperative Extension Service, University of Maine, 100 Winslow Hall,
Orono, ME 04469. Phone 207-581-3186.

Maryland Cooperative Extension Service, University of Maryland, Room 1104,
Symons Hall, College Park, MD 20742. Phone 301-454-3742.

Massachusetts Cooperative Extension Service, University of Massachusetts, Room 117,
Stockbridge Hall, Amherst, MA 01003. Phone 413-545-2766.

Michigan Cooperative Extension Service, Michigan State University, East Lansing,
MI 48824. Phone 517-355-2308.

Minnesota Extension Service, University of Minnesota, St. Paul, MN 55108.
Phone 612-325-3036.

Mississippi Cooperative Extension Service, Mississippi State University, P.O. Box 5446,
Mississippi State, MS 39762. Phone 601-325-3036.

Missouri Cooperative Extension Service, University of Missouri, 309 University Hall,
Columbia, MO 65211. Phone 314-822-7754.

Montana Cooperative Extension Service, Montana State University, 202 Linfield Hall,
Bozeman, MT 59717. Phone 406-994-3681.

Nebraska Cooperative Extension Service, University of Nebraska, 214 Agriculture Hall,
Lincoln, NE 68583-0703. Phone 402-472-2966.

Nevada Cooperative Extension Service, College of Agriculture, University of Nevada,
Reno, NV 89557. Phone 702-784-6611.

New Hampshire Cooperative Extension Service, University of New Hampshire,
Taylor Hall, Room 103, Durham, NH 03824. Phone 603-862-1520.

New Jersey Cooperative Extension Service, Rutgers State University, Box 231,
Cook Campus, New Brunswick, NJ 08903. Phone 201-932-9306.

New Mexico Cooperative Extension Service, New Mexico State University,
Las Cruces, NM 88003. Phone 505-646-3015.

New York Cooperative Extension Service, Cornell University, 103 Roberts Hall,
Ithaca, NY 14853. Phone 607-255-2117.

North Carolina Agricultural Extension Service, North Carolina State University,
Box 7602, Raleigh, NC 27695-7602. Phone 919-737-2811.

North Dakota Cooperative Extension Service, North Dakota State University, NDSU Extension Service, 311 Morrill Hall, Fargo, ND 58105. Phone 701-237-8944.

Ohio Cooperative Extension Service, Ohio State University, 2120 Fyffe Road, Columbus, OH 43210. Phone 614-292-4067.

Oklahoma Cooperative Extension Service, Oklahoma State University, Stillwater, OK 74078. Phone 405-744-5398.

Oregon Cooperative Extension Service, Oregon State University, Corvallis, OR 97331. Phone 503-754-2713.

Pennsylvania Cooperative Extension Service, The Pennsylvania State University, 201 Agricultural Administration Building, University Park, PA 16802. Phone 814-865-2541.

Rhode Island Agricultural Extension Service, University of Rhode Island, Kingston, RI 02881. Phone 401-792-2474.

South Carolina Cooperative Extension Service, Clemson University, 103 Barre Hall, Clemson, SC 29634. Phone 803-656-3382.

South Dakota Cooperative Extension Service, South Dakota State University, P.O. Box 2207 D, Brookings, SD 57007. Phone 605-688-4792.

Tennessee Cooperative Extension Service, University of Tennessee, Box 1071, Knoxville, TN 37901. Phone 615-974-7114.

Texas Agricultural Extension Service, Texas A&M University, System Administration Building, Room 106, College Station, TX 77843. Phone 409-845-7967.

Utah Cooperative Extension Service, Utah State University, Agricultural Science Building, Logan, UT 84322-4900. Phone 801-750-2200.

Vermont Cooperative Extension Service, University of Vermont, Morrill Hall, Burlington, VT 05405. Phone 802-656-2980.

Virginia Cooperative Extension Service, Virginia Polytechnic Institution and State University, 336 Burruss Hall, Blacksburg, VA 24061. Phone 703-231-6705.

Washington Cooperative Extension Service, Washington State University, Agricultural Sciences Building, Pullman, WA 99164-6230. Phone 509-335-2933.

West Virginia Cooperative Extension Service, West Virginia University, 817 Knapp Hall, Morgantown, WV 26506. Phone 304-293-5691.

Wisconsin Cooperative Extension Service, University of Wisconsin, 432 North Lake Street, Room 527, Madison, WI 53706. Phone 608-262-3786.

Wyoming Cooperative Extension Service, College of Agriculture, University of Wyoming, P.O. Box 3354, Laramie, WY 82071. Phone 307-766-5124.

APPENDIX B

STATE FORESTRY AGENCIES

STATE FORESTRY AGENCIES

Alabama Forestry Commission, 513 Madison Avenue, Montgomery, AL 36130. Phone 205-240-9300.

Alaska Department of Natural Resources, 400 Willoughby, Juneau, AK 99801. Phone 907-465-2400.

Arizona Land Department, Forestry Division, 1624 West Adams Street, Phoenix, AZ 85007. Phone 602-255-4627.

Arkansas Forestry, Box 4523, Little Rock, AR 72214. Phone 501-664-2531.

California Department of Forestry and Fire Protection, 1416 Ninth Street, P.O. Box 944246, Sacramento, CA 94244-2460. Phone 916-445-3976.

Colorado State Forest Service, Colorado State University, Fort Collins, CO 80523. Phone 303-491-6303.

Connecticut Department of Environmental Protection, State Office Building, 165 Capitol Avenue, Hartford, CT 06106. Phone 203-566-5599.

Delaware Department of Agriculture, 2320 South Dupont Highway, Dover, DE 19901. Phone 302-736-4811.

Florida Division of Forestry, 3125 Conner Boulevard, Tallahassee, FL 32301. Phone 904-488-4274.

Georgia Forestry Commission, Box 819, Macon, GA 31298-4599. Phone 912-744-3237.

Hawaii Division of Forestry & Wildlife, 1151 Punchbowl Street, Honolulu, HI 96813. Phone 808-548-2861.

Idaho Department of Lands, State Capitol Building, Boise, ID 83720. Phone 208-334-3284.

Illinois Department of Conservation, Forest Resources Division, 524 South Second, Springfield, IL 62706. Phone 217-782-2361.

Indiana Department of Natural Resources, Division of Forestry, 613 State Office Building, Indianapolis, IN 46204. Phone 317-232-4105.

Iowa Department of Natural Resources, Forestry Division, Wallace Building, Des Moines, IA 50319-0034. Phone 515-281-8666.

Kansas State and Extension Forestry, Kansas State University, Manhattan, KS 66502. Phone 913-532-5752.

Kentucky Division of Forestry, Kentucky Department for Natural Resources, Division of Forestry, 621 Comanche Trail, Frankfurt, KY 40601. Phone 502-564-4496.

Louisiana Department of Agriculture and Forestry, Office of Forestry, P.O. Box 1628, Baton Rouge, LA 70821. Phone 504-925-4500.

Maine Department of Conservation, Forest Service, State House Station No. 22, Augusta, ME 04333. Phone 207-289-2791.

Maryland Department of Natural Resources, Forest Park and Wildlife Service, Tawes State Office Building, Annapolis, MD 21401. Phone 301-269-3776.

Massachusetts Department of Environmental Management, Division of Forest and Parks, 100 Cambridge Street, Boston, MA 02202. Phone 617-727-3180.

Michigan Department of Natural Resources, Forest Management Division, Box 30028, Lansing, MI 48909. Phone 517-373-1275.

Minnesota Department of Natural Resources, Division of Forestry, Box 44, St. Paul, MN 55146. Phone 612-296-4484.

Mississippi Forestry Commission, 301 North Lamar Street, Suite 300, Jackson, MS 39201. Phone 601-359-1386.

Missouri Department of Conservation, Forestry Division, P.O. Box 180, Jefferson City, MO 65102. Phone 314-751-4115.

Montana Department of State Lands, Division of Forestry, 2705 Spurgeon Road, Mozulla, MT 59801. Phone 406-728-4300.

Nebraska State Forester and Head, Department of Forestry, Fisheries and Wildlife, 102 Plant Industry Building, Lincoln, NE 68583. Phone 402-472-1467.

Nevada Department of Conservation and Natural Resources, Division of Forestry, Capitol Complex, 201 South Fall Street, Carson City, NV 89710. Phone 702-885-4350.

New Hampshire Department of Resources and Economic Development, Division of Forests and Lands, P.O. Box 856, Concord, NH 03301. Phone 603-271-2214.

New Jersey Division of Parks and Forestry, State Forestry Services, CN 404, Trenton, NJ 08625. Phone 609-292-2520.

New Mexico Natural Resources Department, Forestry Division, Box 2167, Santa Fe, NM 87503. Phone 505-827-5830.

New York Department of Environmental Conservation, Division of Lands and Forests, 50 Wolf Road, Albany, NY 12233-0001. Phone 518-457-2475.

North Carolina Department of Natural Resources and Community Development, Division of Forest Resources, P.O. Box 27687, Raleigh, NC 27611-7687. Phone 919-733-2162.

North Dakota State Forest Service, First and Brander, Bottineau, ND 58318. Phone 701-228-2277.

Ohio Department of Natural Resources, Division of Forestry, Fountain Square, Columbus, OH 43224. Phone 614-265-6694.

Oklahoma State Board of Agriculture Forestry Division, 2800 North Lincoln Boulevard, Oklahoma City, OK 73105. Phone 405-521-3864.

Oregon State Department of Forestry, 2600 State Street, Salem, OR 97310. Phone 503-378-2560.

Pennsylvania Department of Environmental Resources, Bureau of Forestry, P.O. Box 1467, Harrisburg, PA 17120. Phone 717-787-2703.

Rhode Island Department of Environmental Management, Division of Forest Environment, Box 851, RFD No. 2, North Scituate, RI 02859. Phone 401-647-3367.

South Carolina Forestry Commission, Box 21707, Columbia, SC 29221. Phone 803-737-8800.

South Dakota Department of Agriculture, Division of Forestry, Anderson Building, Pierre, SD 57501. Phone 605-773-3623.

Tennessee Department of Conservation, Division of Forestry, 701 Broadway, Nashville, TN 37203. Phone 615-742-6749.

Texas Forest Service, College Station, TX 77843. Phone 409-845-2641.

Utah Department of Natural Resources, Division of State Lands and Forestry, 355 West North Temple, Three Triad Center, Salt Lake City, UT 84180-1204. Phone 801-538-5508.

Vermont Agency of Environmental Conservation, Department of Forest Arts and Recreation, Waterbury Complex, 10 South, Waterbury, VT 05602. Phone 802-244-5654.

Virginia Department of Forestry, Box 3758, Charlottesville, VA 22903. Phone 804-977-6555.

Washington Department of Natural Resources, Public Lands Building, Olympia, WA 98504. Phone 206-753-5327.

West Virginia Department of Agriculture, Forestry Division, State Capitol, Charleston, WV 25305. Phone 304-348-2788.

Wisconsin Department of Natural Resources, Bureau of Forestry, Box 7921, Madison, WI 53707. Phone 608-266-0824.

Wyoming State Land Board, State Forestry Division, 1100 West 22nd Street, Cheyenne, WY 82002. Phone 307-777-7586.

APPENDIX C

U.S. FOREST SERVICE
RESOURCE INVENTORY PROGRAMS
AND
FOREST INVENTORY AND ANALYSIS UNITS

FOREST SERVICE RESOURCE INVENTORY

Forest and rangeland resource inventories are conducted by the Forest Service to provide a quantitative base for decision making by national, state, and local governments and private industry, conservation groups, and individuals. Such decision making includes the assessment of present resource situations, long-range resource policy, location of wood processing plants, and the establishment of resource conservation or incentive programs.

Seven Forest Inventory and Analyzing (FIA) work units located at Forest Experiment Stations throughout the United States are responsible for inventory programs at the regional and state levels. FIA units and their geographic areas of responsibility are shown in this Appendix.

Statewide timber inventory information has been collected for the past 50 years. Each year approximately 50 million acres are inventoried in the 48 contiguous states. Some states and regions have already been inventoried for the fifth time while most have been through at least three inventory cycles. The average inventory cycle for the nation is 12 years, but attempts are being made to melt the demand for more frequent surveys.

The seven FIA work units prepare and publish comprehensive statistical/analytical reports for states or regions which describe resources in detail, evaluate trends in resource supply, and analyze future prospects for the resource. The FIA work units respond to many requests for information. Most requests can be satisfied by these published forest resources reports. However, some work units have developed special computer capabilities to answer unique requests.

A customized Forest Information Retrieval (FIR) service was first developed in the early 1970s by the FIA work unit at the Southeastern Forest Experiment Station. The service is used by hundreds of individuals, firms, public agencies, and local planners. Users can obtain forest resource information for specified geographic areas in the region. An important aspect is the geographic control the user has in defining the study area. A user can delineate the study area by three methods:

1. Whole counties grouped together

2. Circular areas around a specific point

3. Irregular boundaries within a closed traverse of short-line segments (a polygon)

Resource analyses require information that describes the stocking of, condition of, and interactions among all renewable resources including timber, range forage, wildlife habitat, and water. FIA data collection has been expanded to include information on the forest resource and associated nontimber aspects. Much of the information about the timber resource also can be used to describe other resources and to complement information collected by other groups and agencies. Examples of the kinds of resource data collected on sample plots by FIA units are shown below.

Kinds of Resource Data Collected on Sample Plots by Forest Inventory and Analysis Work Units

Area Data

1. Land use (all lands)
2. Use trend (remeasured plots only)
3. Slope
4. Aspect
5. Terrain position
6. Ownership
7. Forest type
8. Stand age
9. Stand size
10. Stand volume class
11. Stand stocking (based on basal area)
12. Area condition class
13. Stand origin
14. Seed source
15. Physiographic classification
16. Past management activity
17. Actual productivity (remeasured plots only)
18. Potential productivity
19. Management opportunity
20. Size of forest stand
21. Wildlife habitat
    a. Water
    b. Edge
    c. Openings
    d. Foliage browse level

Plot Data

1. Distance to road
2. Recreation opportunity classes
3. Plot age--generally 20-year classes for even-aged stands
4. Timber management classes
5. Harvest history
6. Time since cut
7. Equipment limitations
8. Surface boulders
9. Elevation
10. Soils date
    a. Organic depth
    b. Rooting depth
    c. Mottling depth
    d. Texture of B horizon
    e. Bedrock depth
    f. Parent material
    g. Moisture class
    h. Soil series
11. Site index--4 trees: species, height, DBH, and age

Tree Data

1. Species
2. DBH
3. Height (merchantable and sawlog)
4. Cull (cubic and board foot)
5. Tree quality values:
   a. Butt log grade
   b. External defects
   c. Internal defects
   d. Crown classification
   e. Merchantability
   f. Damage/cause of death
   g. Quality class
6. Tree history (remeasured plots only):
   a. Past DBH
   b. Past merchantability
   c. Past quality
7. Wildlife values related to merchantability, species, and size
   a. Wolftree (condition)
   b. Snag (condition)
   c. Feeding site
   d. Cavity entrance
8. Regeneration

Other Vegetation Data

1. Foliage structure
2. Percent foliage volume by life form
3. Regeneration/shrubs/vines (count):
   a. Species
   b. Height
   c. Browse availability/utilization

FOREST INVENTORY AND ANALYSIS UNITS
OF THE USDA FOREST SERVICE

Intermountain Forest and Range Experiment Station (covers the states of Arizona, Colorado, Idaho, Montana, New Mexico, Nevada, Utah, and Wyoming):

Forest Survey
Forestry Sciences Laboratory
507 25th Street
Ogden, UT 84401
801-625-5388

North Central Forest Experiment Station (covers the states of Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, South Dakota, and Wisconsin):

Resource Evaluation in the North Central Region
1992 Folwell Avenue
St. Paul, MN 55108
612-649-5139

Northeastern Forest Experiment Station (covers the states of Connecticut, Delaware, Kentucky, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Vermont, and West Virginia):

Forest Inventory, Analysis, and Economics
370 Reed Road
Broomall, PA 19008
215-690-3037

Pacific Northwest and Forest and Range Experiment Station (covers the states of Alaska, California, Hawaii, Oregon, and Washington):

Forest Inventory and Analysis for Pacific Coast States
Forestry Sciences Laboratory
P.O. Box 3890
Portland, OR 97208
503-231-2083

Forest Inventory and Analysis for Alaska
Forestry Sciences Laboratory
201 East 9th Avenue, Suite 303
Anchorage, AK 99501
907-271-2585

Southeastern Forest Experiment Station (covers the states of Florida, Georgia, North Carolina, South Carolina, and Virginia):

Forest Inventory and Analysis
200 Weaver Boulevard
P.O. Box 2860
Asheville, NC 28802
704-257-4350

Southern Forest Experiment Station (covers the states of Alabama, Arkansas, Louisiana, Mississippi, Oklahoma, Tennessee, Texas, and Puerto Rico):

Forest Inventory and Analysis for Midsouth States
200 Lincoln Green
P.O. Box 906
Starkville, MS 39759
601-324-1611

APPENDIX D

STATE SOIL CONSERVATION SERVICES

STATE SOIL CONSERVATION SERVICES

Alabama Soil Conservation Service, 665 Opelika Road, Auburn, AL 36830. Phone 205-821-8070.

Alaska Soil Conservation Service, Suite 300, 201 East 9th Avenue, Anchorage, AK 99501-3687. Phone 907-271-2420.

Arizona Soil Conservation Service, Suite 200, 201 East Indianola Avenue, Phoenix, AZ 85012. Phone 602-261-2247.

Arkansas Soil Conservation Service, Federal Office Building, 700 West Capitol Avenue, Little Rock, AR 72201. Phone 501-378-5445.

California Soil Conservation Service, 2121-C Second Street, Suite 102, Davis, CA 95616-5475. Phone 916-449-2848.

Colorado Soil Conservation Service, 2490 West 26th Avenue. Diamond Hill, Building A, Denver, CO 80211. Phone 303-964-0592.

Connecticut Soil Conservation Service, 16 Professional Park Road, Storrs, CT 06268-1299. Phone 203-487-4011.

Delaware Soil Conservation Service, 9 East Loockerman Street, Dover, DE 19901-7377. Phone 302-678-0750.

Florida Soil Conservation Service, Federal Building, 401 Southeast First Avenue, Room 248, Gainesville, FL 32601. Phone 904-377-0946.

Georgia Soil Conservation Service, Federal Building, 355 East Hancock Avenue, Athens, GA 30601. Phone 404-546-2273.

Hawaii Soil Conservation Service, 300 Ala Moana Boulevard, Honolulu, HI 96850. Phone 808-546-2601.

Idaho Soil Conservation Service, 304 North Eighth Street, Boise, ID 83702. Phone 208-334-1601.

Illinois Soil Conservation Service, Federal Building, 301 North Randolph Street, Champaign, IL 61820. Phone 217-398-5267.

Indiana Soil Conservation Service, 5610 Crawfordsville Road, Indianapolis, IN 46224. Phone 317-248-4350.

Iowa Soil Conservation Service, 693 Federal Building, 210 Walnut Street, Des Moines, IA 50309. Phone 515-284-4350.

Kansas Soil Conservation Service, 760 South Broadway, Salina, KS 67401. Phone 913-823-4565.

Kentucky Soil Conservation Service, 333 Waller Avenue, Lexington, KY 40504. Phone 606-233-2749.

Louisiana Soil Conservation Service, 3737 Government Street, Alexandria, LA 71302. Phone 318-473-7751.

Maine Soil Conservation Service, USDA Building, University of Maine, Orono, ME 04473. Phone 207-866-2132.

Maryland Soil Conservation Service, Room 522, Hartwick Building, 4321 Hartwick Road, College Park, MD 20740. Phone 301-344-4180.

Massachusetts Soil Conservation Service, 451 West Street, Amherst, MA 01002. Phone 413-256-0441.

Michigan Soil Conservation Service, 1405 South Harrison Road, East Lansing, MI 48823-5202. Phone 517-337-6702.

Minnesota Soil Conservation Service, 200 Federal Building, 316 North Robert Street, St. Paul, MN 55101. Phone 612-290-3675.

Mississippi Soil Conservation Service, Suite 1321, Federal Building, 100 West Capitol Street, Jackson, MS 39269. Phone 601-956-5205.

Missouri Soil Conservation Service, 555 Vandiver Drive, Columbia, MO 65202. Phone 314-875-5214.

Montana Soil Conservation Service, 10 East Babcock, Federal Building, Bozeman, MT 59715. Phone 406-587-6813.

Nebraska Soil Conservation Service, Federal Building, 100 Centennial Mall North, Lincoln, NE 68508-3866. Phone 402-471-5300.

Nevada Soil Conservation Service, Room 219, 1201 Terminal Way, Reno, NV 89505. Phone 702-784-5863.

New Hampshire Soil Conservation Service, Federal Building, Durham, NH 03824. Phone 603-868-7581.

New Jersey Soil Conservation Service, 1370 Hamilton Street, Somerset, NJ 08873. Phone 201-246-1662.

New Mexico Soil Conservation Service, 517 Gold Avenue SW, Albuquerque, NM 87102-3157. Phone 505-766-2173.

New York Soil Conservation Service, Federal Building, 100 South Clinton Street, Syracuse, NY 13260. Phone 315-423-5521.

North Carolina Soil Conservation Service, Federal Building, 310 New Bern Avenue, Raleigh, NC 27601. Phone 919-856-4210.

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North Dakota Soil Conservation Service, Federal Building, Rosser Avenue and Third Street, Bismarck, ND 58502. Phone 701-255-4011, Ext. 421.

Ohio Soil Conservation Service, Room 522, 200 North High Street, Columbus, OH 43215. Phone 614-469-6962.

Oklahoma Soil Conservation Service, Agriculture Building, Farm Road and Brumley Street, Stillwater, OK 74074. Phone 405-624-4360.

Oregon Soil Conservation Service, Federal Office Building, 1220 Southwest Third Avenue, Portland, OR 97204. Phone 503-221-2751.

Pennsylvania Soil Conservation Service, Federal Square Station, Box 985, Harrisburg, PA 17108. Phone 717-782-2202.

Rhode Island Soil Conservation Service, 46 Quaker Lane, West Warwick, RI 02893. Phone 401-828-1300.

South Carolina Soil Conservation Service, Federal Building, 1835 Assembly Street, Columbia, SC 29201. Phone 803-765-5681.

South Dakota Soil Conservation Service, 200 Fourth Street SW, Federal Building, Huron, SD 57350. Phone 605-352-8651.

Tennessee Soil Conservation Service, U.S. Court House, Room 675, 801 Broadway Street, Nashville, TN 37203. Phone 615-251-5471.

Texas Soil Conservation Service, W. R. Poage Building, 101 South Main Street, Temple, TX 76501-7682. Phone 817-774-1214.

Utah Soil Conservation Service, 4012 Federal Building, 125 South Main Street, Salt Lake City, UT 84138. Phone 801-524-5050.

Vermont Soil Conservation Service, 69 Union Street, Winooski, VT 05404. Phone 802-951-6795.

Virginia Soil Conservation Service, Federal Building, Room 9201, 400 North Eighth Street, Richmond, VA 23240. Phone 804-771-2455.

Washington Soil Conservation Service, 360 U.S. Courthouse, West 920 Riverside Avenue, Spokane, WA 99201. Phone 509-456-3711.

West Virginia Soil Conservation Service, 75 High Street, Morgantown, WV 26505. Phone 304-291-4151.

Wisconsin Soil Conservation Service, 4601 Hammersley Road, Madison, WI 53711. Phone 608-264-5577.

Wyoming Soil Conservation Service, Federal Office Building, 100 East B Street, Casper, WY 82601. Phone 307-261-5201, Ext. 3217.

III. Selected Technical Assistance Materials for Rural Economic Development Through Forest Resources

III. SELECTED TECHNICAL ASSISTANCE MATERIALS FOR RURAL ECONOMIC DEVELOPMENT THROUGH FOREST RESOURCES

This section represents a careful screening to select a variety of technical assistance materials that could be useful to local, county, regional, or state leaders. It is not meant to be a comprehensive bibliography. Rather, it is a cross section of a variety of assistance materials that could serve as models or input for local groups seeking to utilize their area's forest resources more effectively in their rural economic development strategy.

FOREST RESOURCE TECHNICAL ASSISTANCE MATERIALS

Doc. No.	Title	Institution or Author
400	Design and Feasibility Analysis for a Wood Products Industrial Park	West Virginia University
401	Great American Woodlots	University of Maine
402	Conserving and Managing Our Nation's Forest Resources	U.S. Department of Agriculture
403	Alternative Enterprises for Your Forest Land	Florida Cooperative Extension
404	The Woodland Steward	James Fazio, University of Idaho
405	Forest Products Marketing and Industrial Strategy Operating Guide	Mater Engineering Ltd., Corvallis, Oregon
406	Ready-to-Assemble Furniture Manufacturing--A Business Plan for the Northeastern Area	USDA Forest Service
407	Pennsylvania Woodlands Series	Pennsylvania State University
408	Indigenous Industry and Product Assessment of Hardwood Related Goods in Northeastern Pennsylvania	Economic Development Council of Northeastern Pennsylvania
409	Opportunities for Industrial Expansion--A Northeast Mississippi Furniture Industry Market Void Approach	Tennessee Valley Authority
410	Iowa State University Extension Service Pamphlets	Iowa State University
411	Industrial Development Based on Wood	The North Twenty RC&D Area, Wisconsin
412	The Creation of an Industrial Park and a Competitive Strategy	Ross Associates Inc., North Carolina
413	Forestry Extension Notes and Related Forestry Publications	Iowa State University
414	Materials on Michigan's Forest Products Industry Development Initiatives	State of Michigan
415	Proceedings of Governor James J. Blanchard's Blanchard's Second Conference on Michigan's Forest Resources	Office of the Governor, Michigan

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Doc. No.	Title	Institution or Author
416	Lake States Forestry Alliance--1988 Annual Report	The Lake States Forestry Alliance, Minnesota
417	Marketing Assistance Materials	Michigan Department of Natural Resources
418	Interim Report on the Action Program for the Eighties	New Hampshire's Department of Resources and Economic Development
419	Forest-Land Owners of New Hampshire	U.S. Department of Agriculture
420	Forestry Information Source Book	North Carolina State University
421	Forest Products Industry Development Opportunities in West Central Michigan	West Michigan Regional Planning Commission
422	Outlook for Value-Added Wood Manufacturing in Pennsylvania	Center for Rural Pennsylvania
423	Series of Forest-Industry Directories	Pennsylvania Department of Environmental Resources
424	District News, Summer 1989 Newsletter of the Western Upper Peninsula Forest Improvement District	Michigan Western Upper Peninsula Forest Improvement District
425	Forests--The West Virginia Economy Series	West Virginia University
426	A Guide to Exporting Solid Wood Products	U.S. Department of Agriculture
427	Timber Management for Small Woodlands	Cornell University
428	Secondary Forest Products Manufacturers Market Void Identification	Tennessee Valley Authority
429	Investment Opportunities in the Michigan Hardwood Dimension Industry	Michigan Technological University
430	Forest Products Industry Development Programs in the ANCA Area, New York State	The Irland Group, Maine
431	Prospects for High-Quality Hardwoods	The Irland Group, Maine
432	The Lake States Forests--A Resources Renaissance	The Lake States Forestry Alliance, Minnesota
433	Materials on the Economic Impact of Forestry in New York's Southern Tier	Cornell University
434	Marketing Timber: How Can Landowners Realize the Potential of Timber Utilization?	University of Minnesota
435	Lumber From Local Woodlots	Cornell University
436	Enhancing New York's Forestry Industry: A Targeted Approach	New York State Legislative Commission on Rural Resources
437	Final Report on the Master Woodland Manager Pilot Project	Oregon State University
438	Wisconsin Woodlands--Marketing Timber	University of Wisconsin
439	Adapting to the Environment	Forest Trust, New Mexico
440	Economic Evaluation of a Residue System	West Virginia University

Doc. No.	Title	Institution or Author
441	Wood Residue From the Forest Products Industry in West Virginia: Amounts, Location, and Availability	West Virginia University
442	A Forest Industry Park as a Strategy for Rural Economic Development	Mater Engineering Ltd., Oregon
443	A Guide to Rural Economic Development Through Forest and Wildlife Resources	Mississippi State University
444	Series of Publications on Small Enterprises Utilizing Forest Resources	U.S. Forest Service, Northeastern Area State and Private Forestry

The subject areas shown below were used; these subject areas can be used as a guide to locate documents with information on these subjects. The "400" series publications are found in this section; "500" series publications are in Section V.

Alternative forest enterprises

401 420 504
404 443
413 444

Business planning

406 444
426

Conservation

401 414
402 415
404 418
407 439
413

Exporting

426
431

Education

402 422
403 427
414 433
418 436
419 437
420

Forest products industry park

400 414
405 421
406 429
409 440
411 441
412 442

Feasibility analysis

400 440
412 444

Forest land management

401 413 427
402 418 435
403 419 437
404 420 438
407 424 439
410 425 443

Financing

406
411

Marketing

405 417 429
406 421 430
407 423 433
408 424 434
409 426 438
416 428 439

Organizing

411 424
415 430
416 433
421 443

Resource assessment

407 427
419 436
420 443
425 526

Overview

402 431
414 432
415 436
422 443

Secondary manufacturing

400 411 423 440
406 412 425 441
408 414 428 442
409 421 429 444
410 422 436

Wildlife management

401 429
404 443
407 507
418

Wood products

400 412 425 439
405 414 426 440
406 417 428 442
408 420 429 444
410 421 430 546
411 423 435

DOC. NO. 400 *Design and Feasibility Analysis for a Wood Products Industrial Park*

Jones, Kenneth D.; Zinn, Gary W.; Patterson, David W.; et al.

Morgantown, WV: West Virginia University, College of Agriculture and Forestry, July 1988, 79 pp.

ANNOTATION This report was prepared under contract with the U.S. Economic Development Administration. The industrial park design and all data assume an unspecified location in West Virginia. However, the format for the feasibility analysis and the design for the industrial park concept could be adapted for any area considering a vertically integrated hardwood products industrial park.

The design includes independently owned secondary wood enterprises centered around a primary manufacturing system composed of a sawmill, dry kiln, and lumber warehouse. Included is a development corporation concept to handle physical development of the park; operate the sawmill, dry kiln, and warehouse; provide managerial and business services; and market the member industries' products. Secondary manufacturers would contract with the development company for industrial space, wood raw materials, and marketing and management services. Report contents include:

- The industrial park concept.
- The operational concept.
- The operating structure.
- Functional activities of the complex.
- Physical arrangement of the industrial park.
- Primary and secondary product recommendations.
- The corporate organization.
- Site selection criteria.

An extensive bibliography is included. An appendix on the design and feasibility of a manufacturing system to support satellite industries in an industrial park setting includes detailed assumptions applicable to the cash flow and feasibility analysis.

SOURCE National Technical Information Service, Springfield, VA 22161. Phone 703-487-4650. When ordering, provide the order number, PB 88-247267/AS. The cost is $15.95 in paper, $6.95 in microfiche, plus $3.00 shipping and handling. Major credit cards accepted. Rush service also available.

DOC. NO. 401 *Great American Woodlots*

Maine Public Broadcasting Network and the Cooperative Extension Service, University of Maine

Orono, ME: University of Maine Cooperative Extension Service, 1987

ANNOTATION *Great American Woodlots* is a 13-part television series available on videos that provides forestry information for private landowners and the general public. The series fosters a sense of husbandry and stewardship for forestland, illustrates the role of the forestry professional, and demonstrates practical uses for woodlots for income and recreation enhancement. The series also emphasizes the forest as potential wildlife habitat and discusses some of the larger issues pertaining to the future of forests.

Interviews with woodlot owners; practical, how-to information; advice on encouraging game and nongame animals; features on young people learning about forests; and viewpoints are among the formats. The 13 videotape programs are described in a free brochure.

SOURCE *Great American Woodlots*, 107 Nutting Hall, University of Maine, Orono, ME 04469, attention Bud Blumenstock. Phone 207-581-2890. The series is available free of charge to stations of the Public Broadcasting Network. Viewers may purchase any of the 13 programs for $14 each or borrow tapes from the University of Maine's Fogler Library through the Interlibrary Loan System.

DOC. NO. 402 *Conserving and Managing Our Nation's Forest Resources*

Duryea, Mary L.; Deneke, Frederick J.

Washington, DC: U.S. Department of Agriculture, Extension Service, 1989, 19 pp.

ANNOTATION In 1986 USDA's Extension Service developed an agenda of nine national initiatives to serve as goals for the Service's programs. One of these nine initiatives was conserving and managing natural resources. This publication was produced to provide an overview of program results in forest resources. Many brief descriptions are given of Extension programs and methods being used around the country to improve forest resource conservation and management, strengthen forest enterprises, and provide more education about forest resources. The publication is useful for the range of ideas presented on a good variety of forest initiatives.

SOURCE John A. Vance, Deputy Administrator, Extension Service, USDA, Room 3909, South Building, Washington, DC 20250. Phone 202-447-7947. Single copies are free.

DOC. NO. 403 *Alternative Enterprises for Your Forest Land: Forest Grazing, Christmas Trees, Hunting Leases, Pine Straw, Fee Fishing, and Firewood*

Duryea, Mary L., editor

Gainesville, FL: Florida Cooperative Extension Service, Circular 810, June 1988, 30 pp.

ANNOTATION This publication highlights six enterprises (forest grazing, Christmas trees, hunting leases, pine straw, fee fishing, and firewood) that landowners can incorporate into a forest resource management plan. Each enterprise is addressed individually with an introduction, steps for adding each enterprise, costs and returns, advantages and disadvantages of managing for each enterprise, and conclusions. At the end of the circular is a list of publications for more information on each enterprise.

SOURCE Department of Forestry, University of Florida, 118 Newins-Ziegler Hall, Gainesville, FL 32611. Phone 904-392-5420. Free.

DOC. NO. 404 *The Woodland Steward*

Fazio, James R.

Moscow, ID: The Woodland Press, 1987, 211 pp.

ANNOTATION This book sets forth a readable, straightforward approach to planning and carrying out a good woodland management program. It is written for nonprofessionals, owners of nonindustrial, small private forests who want to do more with their land but need to learn how to get started. Information is provided on taking inventory; planning; silviculture; seeding and woodland improvement; protection; harvesting; wood products; firewood; growing Christmas trees, holly, and sweet maples; and wildlife management. Appendices list forest landowner associations by state; woodland suppliers; state forestry laws; a guide to regeneration cuttings by regions and major forest types; a sample timber sale contract, firewood cutting permit, and Christmas tree sale contract; a procedure for timber cruising; and examples of volume tables.

SOURCE The Woodland Press, Box 3524, University Station, Moscow, ID 83843. Phone 208-882-2327. $16.90 postpaid.

DOC. NO. 405 *Forest Products Marketing and Industrial Strategy Operating Guide*

Mater, Dr. Jean

Corvallis, OR: Mater Engineering Ltd., July 1988, 254 pp.

ANNOTATION This guide provides detailed methods for helping primary and secondary wood processors develop and market products, and for assisting communities use their forest resources for industrial development. It focuses on identifying and marketing products to provide opportunities for employment and for enhanced use of forest land. Chapters address marketing (the concept, plan, assistance sources, components of a marketing study, strategies); techniques for product planning, analyzing the competition, pricing, distributing, determining economic feasibility; promoting; locating financing sources; developing a market information system; and forest products industrial development. Work sheets, checklists, and questionnaires are provided on such topics as analyzing a company, identifying wood product opportunities, calculating the effect of a price change, segmenting a market by SIC classification, developing a promotion strategy, avoiding exporting pitfalls, selecting a distribution channel, evaluating a product, selecting a marketing strategy, and meeting a banker's test. Appendices identify forest industry organizations, forest industry trade journals, marketing reference books, sources of computer software for marketing, and sources of information on exporting.

SOURCE Mater Engineering Ltd., P.O. Box "O," Corvallis, OR 97339. Phone 503-753-7335. $32.95 postpaid. Ask for a list of related publications.

DOC. NO. 406 *Ready-to-Assemble Furniture Manufacturing—A Business Plan for the Northeastern Area*

Pepke, Ed

St. Paul, MN: USDA Forest Service, Publication NA-TP-12, 1988, 23 pp.

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ANNOTATION This publication offers a pro forma business plan for ready-to-assemble (RTA) furniture. RTA furniture is the fastest growing segment of the world's furniture market, and this business plan was prepared to encourage new enterprises to enter this market. Sections include an industry description; product, service, and process description; marketing plan; business organization plan; operating plan; financial plan; and assessment of risks and weaknesses. It was prepared for the northeastern area states (a 20-state U.S. Forest Service region). It is useful in its own right, and it also represents a model of a type of technical assistance approach that rural areas anywhere could request from marketing specialists with the Forest Service.

SOURCE Northeastern Area, State and Private Forestry, USDA Forest Service, 1992 Folwell Avenue, St. Paul, MN 55108. Phone 612-649-5238. Free.

DOC. NO. 407 *Pennsylvania Woodlands Series*

Finlay, James C.; Fajvan, Mary Ann; Pywell, Nancy; Grace, James R.; Devlin, Daniel; Payne, Jack; Hassinger, Jerry

University Park, PA: Forest Resources Extension, School of Forest Resources, The Pennsylvania State University, 1985-1989, 10 issues, 4-7 pp. each issue

ANNOTATION This 10-part series addresses subjects of concern to private forest owners. Topics covered in the 10 issues include "Sources of Information and Guidance for Woodland Owners," Introduction to Woodland Management," "Resource Evaluation," "Marketing Products From Your Woodland," and "Hardwood Management for Economic Return." Some of the information is specific to the state of Pennsylvania, and much of it refers to that region's hardwood species. But there is also much information of general utility. The series is a good example of technical assistance information directed to the private landowner.

SOURCE Forest Resources Extension, School of Forest Resources, The Pennsylvania State University, 110 Ferguson Building, University Park, PA 16802. Phone 814-863-0401. Free.

DOC. NO. 408 *Indigenous Industry and Product Assessment of Hardwood Related Goods in Northeastern Pennsylvania* (a catalog of goods and services produced)

Economic Development Council of Northeastern Pennsylvania

Pittston, PA: Economic Development Council of Northeastern Pennsylvania, 1989, 61 pp.

ANNOTATION This report represents a hardwood products application of a statewide computerized program to match state suppliers with state users of goods and services. Computer-generated listings of industries/firms in northeastern Pennsylvania that might buy from the hardwood products industry are provided, with contact persons, titles, addresses, and telephone numbers. The information is county-specific and provides a very good example of technical assistance information that local development organizations could use to plan programs to help rural areas retain and expand existing natural resource-based businesses, improve profitability for forest landowners, and stimulate secondary processing.

SOURCE Pocono Northeast Hardwoods Association, 1151 Oak, Pittston, PA 18640. Phone 717-655-5581. $20.00 for paper; $30.00 for diskette; $40.00 for paper and diskette.

DOC. NO. 409 *Opportunities for Industrial Expansion—A Northeast Mississippi Furniture Industry Market Void Approach*

Mississippi Research and Development Center

Knoxville, TN: Valley Resource Center, Tennessee Valley Authority, November 1986, 45 pp.

ANNOTATION This study was prepared to determine what, if any, market voids existed in the furniture industry of northeast Mississippi. Other objectives of the study were to quantify the size and scope of the furniture manufacturing industry in the study area and to analyze the quantity and kind of raw materials used by this industry. The upholstered furniture industry, as well as wooden household furniture firms, dimension stock suppliers, millwork firms, and wooden kitchen cabinet manufacturers, were interviewed.

The study report is included here because it is a useful, straightforward example of the type of market study development groups could utilize in identifying possible opportunities and components of a forest industry park. Appendix A includes the survey form for the market void study.

SOURCE Economics and Management Sciences Department, Midwest Research Institute, 425 Volker Boulevard, Kansas City, MO 64110. Phone 816-753-7600, Ext. 449. $10.00.

DOC. NO. 410 Iowa State University Extension Service pamphlets

Cooperative Extension Service, Iowa State University

Ames, IA: Cooperative Extension Service, Iowa State University

ANNOTATION Four publications prepared by Iowa State University's Extension Service provide good examples of the kinds of directories that should be available in other states. The first is *Directory of Sawmills, Veneer Mills, and Pulp Mills in Iowa* by Dean Prestemon and John Tibben (revised February 1989, 16 pp.). This directory can guide those who have sawtimber to sell, who want logs sawn, or who want to buy logs, lumber, or other wood products. The second is *Directory of Wood-Using Industries of Iowa* by Dean Prestemon and Verlyn Anders (revised December 1986, 16 pp.). This second directory summarizes Iowa's secondary wood processors, a total of 244 wood-using industries. The third brochure is *Forestry Contacts and Organizations in Iowa* by Paul Wray (revised April 1989, 4 pp.). It provides a brief description of the various agencies and programs related to forestry in the state. The fourth publication is *Directory of Iowa Nurseries That Deal in Forestry and Ornamental Planting Stock* by Reinee Hildebrandt, Paul Wray, and Jim Midcap (revised March 1986, 8 pp.). This last directory is used by people interested in locating nurseries that sell tree and shrub stock.

SOURCE Forestry Extension, 251 Bessey Hall, Ames, IA 50011. Phone 515-294-1168. No charge. Also, ask for publication list on recent forestry and agricultural diversification materials.

DOC. NO. 411 *Industrial Development Based on Wood* (a notebook)

Irland, Dr. Lloyd; Mater, Dr. Jean

Medford, WI: The North Twenty RC&D Area, 1989, 650 pp. (estimated)

ANNOTATION This is an enormous notebook prepared as part of a course on wood-based industrial development. The materials are tailored to a Wisconsin/Minnesota audience. Of particular interest in Part I are 12 case studies. Part II has an outline presentation of forest industry location factors (e.g., markets, materials, and human resources). Part III includes a sample economic development proposal by a rural county (Crow Wing, Minnesota) that was helpful in locating a new structural panel plant in the rural area. There is also a Part IV with technical information on new forest products industries. The notebook is too extensive to be reproduced in its entirety, but copies of Parts I and IV and the proposal *Wood Products Manufacturing in Crow Wing County, Minnesota*, are available. Much of the material of Part II can be found in Document No. 405.

SOURCE For copies of *Industrial Development Based on Wood*, *Wood Products Manufacturing in Crow Wing County, Minnesota*, and *Technical Information on New Forest Products Industries*, contact The Irland Group, 7 North Chestnut Street, Augusta, ME 04330. Phone 207-622-4023. $5.00. Ask about courses tailored to other states.

DOC. NO. 412 *The Creation of an Industrial Park and a Competitive Strategy*

Ross Associates Inc.

Asheville, NC: Ross Associates Inc., 1988, 44 pp. (study), 7 pp. (addendum)

ANNOTATION The objective of this study was to determine the feasibility of developing an industrial park in the area of Gardner, Massachusetts, that would be devoted exclusively to secondary wood products industries (SWPI). A brief industry profile is given that includes an analysis of demand of the SWPI and a competitive analysis of the study area. The addendum recommends a competitive strategy. The study and addendum are recommended here as useful models for other areas to use in considering feasibility studies for forest industry parks.

SOURCE Ross Associates Inc., 33 Mineral Springs Road, Asheville, NC 28805. Phone 704-255-8778. Free.

DOC. NO. 413 *Forestry Extension Notes* and related forestry publications

Cooperative Extension Service, Iowa State University

Ames, IA: Cooperative Extension Service, Iowa State University

ANNOTATION *Forestry Extension Notes* are one- to eight-page technical assistance publications designed for the private landowner in Iowa but useful in many cases to woodland owners in any area. Examples of the topics covered include cultivation of Shiitake mushrooms, grazing in woodlands, maple syrup production, forestry and agricultural diversification, Christmas tree shearing, tree planting tax incentives, and how current tax laws affect woodland owners. In addition to *Forest Industry Notes*, there are several good publications on forest-related topics that are available as separate reports from this office.

SOURCE Forestry Extension, 251 Bessey Hall, Ames, IA 50011. Phone 515-294-1168. No charge. Also, ask for publication list on recent forestry and agricultural diversification materials.

DOC. NO. 414 Materials on Michigan's forest products industry development initiatives

Office of the Governor, State of Michigan

Lansing, MI: Office of the Governor

ANNOTATION The publication *Michigan Renewable Resource Development Initiative* and its Executive Summary describe Michigan's plan to develop the resource sector of the state's economy--the food and agricultural economy, the forest products industry, and the tourism/recreation industry. While it is not written for the local community leader, it is included here because many of the initiatives described could be scaled down to be strategies for multicounty organizations in rural areas to target for their own natural resource development. The reports point out that natural resource-based industries are fundamentally different from other industries, dependent as they are on successful integration of the normally separate activities of economic development and resource management. These dual objectives--development and good stewardship--are likewise the key to realizing the full potential of every rural area's natural resource base. Three of the action areas focus on resource-based industries: agriculture and related industries, the forest industry, and the tourism/recreation industry. A number of short- and long-term actions are recommended in each area.

The *Forest Products Industry Development Program* includes many good Michigan examples of regional industry development efforts. One example is the use of state wood utilization specialists to work with Resource Conservation and Development (RC&D) districts to implement economic development plans based on a region's forest resources. A second is a state-assisted industrial park that includes a wood-fueled power plant fueled by sawmill wastes and forest residues. A third is a directory of secondary wood products manufacturers.

SOURCE Forest Management Division, Michigan Department of Natural Resources, P.O. Box 30028, Lansing, MI 48909. Phone 517-373-1275. All three publications are free, but quantities are limited.

DOC. NO. 415 Proceedings of Governor James J. Blanchard's Second Conference on Michigan's Forest Resources

Marchello, Barbara L., editor

Lansing, MI: Office of the Governor, March 1988, 53 pp.

ANNOTATION The 1988 Governor's Conference on Michigan's Forest Resources had three objectives. The first was to develop a common understanding among participants of the progress made in eight years toward orderly, responsible growth in the state's forest products industry. The second objective was to identify barriers to further progress. And the third was to widen the array of coalitions that have a sincere interest in the quality and productivity of the state's forest and that the state needs to agree on priorities in order to move the process ahead.

The *Proceedings* are a collection of speeches. It is included here because it presents a good cross section of the attitudes and perspectives rural regions could expect to encounter in undertaking a stronger forest utilization strategy. Perspectives presented include the environmental, industrial, small business, local government, and public lands perspectives.

SOURCE Forest Management Division, Michigan Department of Natural Resources, P.O. Box 30028, Lansing, MI 48909. Phone 517-373-1275. Free.

DOC. NO. 416
Lake States Forestry Alliance—1988 Annual Report
The Lake States Forestry Alliance
St. Paul, MN: The Lake States Forestry Alliance, January 1988, 6 pp.

ANNOTATION The Lake States Forestry Alliance was established in 1988 to promote cooperative efforts to improve management and wise use of Michigan's, Minnesota's, and Wisconsin's forest lands. This report summarizes the Alliance's first year of operation. Accomplishments included a slide show and video, conference display, brochures, newsletter, and regional marketing folder. Projects under way in 1989 included a recreation workshop, regional marketing and resource assessments, development of position papers on biodiversity and water quality regulations, and strengthening the three states' forestry and woodland owners' associations. The report is included here as a valuable contact for regional forest groups, since many of the programs and projects could be scaled to a regional effort to organize and promote improved forest management and marketing.

SOURCE The Lake States Forestry Alliance, E-1311 First National Bank Building, 332 Minnesota Street, St. Paul, MN 55101. Phone 612-291-0353. No charge. Ask for a brochure as well as the current Annual Report.

DOC. NO. 417
Marketing assistance materials
Burcham, Vi, editor
Lansing, MI: Forest Management Division, Michigan Department of Natural Resources

ANNOTATION *Michigan Directory of Forest Products—Producers, Truckers, Brokers, and Dealers* (1987, 174 pp.) is a good example of the kind of information needed to assist rural regions with forest resources. The forest products producers directory helps primary mills and secondary manufacturers obtain raw materials and helps landowners market their timber. A total of 997 companies are listed, with information on their business type, number of employees, annual volume, products produced, equipment used, and services offered.

Wood Products in Michigan—A Directory of Mills and Manufacturers helps landowners and producers identify markets for their timber. Over 1,600 industries are listed, and data include the products produced, tree species used, equipment used, services offered, number of employees, annual production, contact numbers, and exporters. Sample survey sheets are also included. It also enhances product marketing among wood-using industries and product consumers.

SOURCE For the forest products directory, contact Vi Burcham, DNR, Forest Management Division, P.O. Box 30028, Lansing, MI 48909. Phone 517-373-1275. For the mills and manufacturers directory, contact the State of Michigan, DNR, Information Services, Box 30028, Lansing, MI 48909. Phone 517-373-1220. Each directory is $6.00. Make check payable to the State of Michigan.

DOC. NO. 418 *Interim Report on the Action Program for the Eighties*

Division of Forests and Lands, New Hampshire Department of Resources and Economic Development

Concord, NH: Department of Resources and Economic Development, Division of Forests and Lands, February 1986, 30 pp.

ANNOTATION This report represents an update of a 1982 *Action Program for the Eighties*. It was prepared with assistance from a wide array of groups and the state's 10 County Forest Advisory Boards. Goals, objectives, and recommendations to be pursued through the end of the decade are presented. The report is included here because the state's five goals--forest improvement; increased public awareness; better marketing of forest products and retention and expansion of wood-based industries; forest and environmental protection; and institutional changes to encourage better land stewardship--would be important in many other rural areas. Some of the specific actions called for or under way may be approaches rural regions would wish to consider. Also of interest are the 104 original recommendations listed in the appendix.

SOURCE State of New Hampshire, Department of Resources and Economic Development, Division of Forests and Lands, 105 Loudon Road, Prescott Park, P.O. Box 856, Concord, NH 03301. Phone 603-271-2214. Free.

DOC. NO. 419 *Forest-Land Owners of New Hampshire, 1983*

Birch, Thomas W.

Broomall, PA: U.S. Department of Agriculture, Forest Service, Northeastern Forest Experiment Station, Resource Bull. NE-108, 1989, 96 pp.

ANNOTATION This publication reports on a mail survey of private timberland owners in New Hampshire. It discusses forest landowner characteristics, attitudes, and intentions of owners regarding reasons for owning, recreational use, timber management, and timber harvesting. The report includes the 37-question survey, which would be quite useful to rural areas undertaking their own landowner survey.

SOURCE Northeastern Forest Experiment Station, 359 Main Road, Delaware, OH 43015. Phone 614-363-0023, Ext. 264. Ask for Resource Bulletin NE-108. Free.

DOC. NO. 420 *Forestry Information Source Book*

Levi, Michael; Beck, Daphne

Raleigh, NC: Extension Forest Resource Department, North Carolina State University, 1989, 52 pp. plus numerous brochures; updated every two years

ANNOTATION This sourcebook was designed to help landowners and community leaders in North Carolina learn more about the state's forests and forest management. It contains forest resource data and provides substantial information on public and private sources of assistance, forestry publications, audiovisual aids, and educational opportunities for learning more about forestry. Additional brochures and reports have been inserted into the notebook, including "Forestry and Forestry Products in North Carolina"; "Protect Your Pine Timber"; "Cut Your Timber, Not Your Profits"; "Handy Tables for Measuring Farm Timber"; "North Carolina's Forests" and 21 back issues of the "Woodland Owner Notes" published by the North Carolina Agricultural Extension Service. The sourcebook is an excellent example of a state effort to compile a body of forestry information pertinent to the private landowner and other interested individuals concerned with the economic, social, and environmental implications of decisions made about the state's forest land.

SOURCE Extension Forest Resources Department, College of Forest Resources, Box 8003, North Carolina State University, Raleigh, NC 27695-8003. $10.00. Make check payable to North Carolina State University. For more information, contact Larry G. Jahn at 919-737-3386.

DOC. NO. 421 *Forest Products Industry Development Opportunities in West Central Michigan*

West Michigan Regional Planning Commission and the West Michigan Shoreline Development Commission

Grand Rapids, MI: West Michigan Regional Planning Commission, undated, 71 pp.

ANNOTATION This publication was prepared to identify opportunities for additional harvesting and processing of west Michigan timber resources and to provide an information base that potential investors could use as a "prefeasibility" guide for wood-based development opportunities. General characteristics of the 12-county area and data on its timber supply and existing forest products industries are presented. Industry opportunities for lumber, veneer, composite wood, energy, and secondary manufacturing are discussed, and broad recommendations are made as to which products have the best development potential. Considerable material is included on forest products industry incentives. Appendices list development organizations in the region and definitions of terms. The publication would be useful for regions preparing their own summary of industrial development opportunities.

SOURCE West Michigan Regional Planning Commission, Suite 240, Two Fountain Place, Grand Rapids, MI 49503. Phone 616-454-9375. $10.00. Copies are quite limited. (If you are unable to obtain a copy, contact Midwest Research Institute, Economics Reference Center, 425 Volker Boulevard, Kansas City, MO 64110. Phone 816-753-7600.)

DOC. NO. 422 *Outlook for Value-Added Wood Manufacturing in Pennsylvania*

Center for Rural Pennsylvania

Harrisburg, PA: Center for Rural Pennsylvania, Technical Paper 88-1, undated, 8 pp.

ANNOTATION The Center for Rural Pennsylvania provides members of the Pennsylvania General Assembly and other interested parties with data and information on concerns of rural Pennsylvania. This is one of a series of technical papers produced each year. While the subject is Pennsylvania, many of the observations hold true for many other states with abundant quality forest resources.

Researchers found that job growth in the 12 leading value-added wood manufacturing industries had been strong in the state since 1984, with approximately two-thirds of the growth attributed to competitive advantages associated with location in Pennsylvania. The report cautioned that future expansion will be dependent on success in expanding exports, effecting good management of forest lands, and continued productivity. Perhaps most important, the paper points out that rural communities will only capture future employment growth in value-added wood manufacturing if such a strategy is part of a comprehensive economic development approach that must include education and skill training, leadership development, and other factors.

SOURCE Center for Rural Pennsylvania, 212 Locust Street, Suite 408, Harrisburg, PA 17101. Phone 717-787-9555. One copy is free of charge; additional copies are $1.00 each. Ask for the list of Technical Papers and topics of the *Rural Issues* newsletters.

DOC. NO. 423 Series of forest-industry directories

Bureau of Forestry, Pennsylvania Department of Environmental Resources

Harrisburg, PA: Division of Forest Advisory Services, assorted 1988 and 1989 publications, each 15 to 120 pp.

ANNOTATION The Division of Forest Advisory Services in Pennsylvania's Bureau of Forestry prepares a number of directories to help promote organized economic development efforts aimed at more productive use of the state's forest lands. The directories are included here as another example of a forestry information service that should be accessible to all rural areas with abundant forest resources. The format would be useful for rural areas wishing to request such publications be developed by their own state. Examples include:

- Pennsylvania Kiln Drying Directory (January 1989)
- Pennsylvania Woodworking Directory (January 1989)
- Pennsylvania Secondary Wood Processors Wood Residue Directory (1989)
- Pennsylvania Sawmill Wood Residue Directory (1989)
- Pennsylvania Directory of Veneer Log Buyers (January 1989)
- Sawmill Directory (February 1989)
- Logger Directory (February 1989)
- Pallet Directory (January 1988)

SOURCE Division of Forest Advisory Services, P.O. Box 1467, Harrisburg, PA 17105. Phone 717-787-2105. Free. Ask for complete list of current directories.

DOC. NO. 424 *District News*, Summer 1989 Newsletter of the Western Upper Peninsula Forest Improvement District

Ziemer, Irvin R.

Pelkie, MI: Western Upper Peninsula Forest Improvement District, 1989, 11 pp.

ANNOTATION The "Information" edition of this publication profiles the activities of the Western Upper Peninsula Forest Improvement District, a pilot project sponsored by the Michigan Department of Natural Resources and the state's first forest improvement district. Currently there are over 400 members and 115,000 enrolled acres in the district. The newsletter gives a brief history of the organization, its administrative framework, operations, achievements, services provided, member obligations, and other information.

A forest improvement district has three major functions: providing management services to members, marketing forest products harvested on members' lands, and developing industrial sites to utilize these forest products. The forest improvement district concept is modeled after similar organizations in Scandinavia. It is a very promising model for merging natural resource conservation and management objectives with economic development.

SOURCE Western Upper Peninsula Improvement District, U.S. 41, Arnheim, HC01 Box 281, Pelkie, MI 49958. Phone 906-353-7250, or in Michigan 800-851-0339. Free. An annual report is also available.

DOC. NO. 425 *Forests—The West Virginia Economy Series*

Zinn, Gary; Jones, Kenneth D.

Morgantown, WV: West Virginia University Agricultural and Forestry Experiment Station, Bulletin 691, West Virginia Forest Development Series, Vol. 1-8, 1984-1987, approx. 26 pp. per volume

SUBJECTS Forest land management, resource assessment, secondary manufacturing, wood products

ANNOTATION This eight-booklet series was developed to examine the state's forest resources, their utilization, their role in the economy, the outlook for the future, and prospects for increasing the economic contribution of forests and forest-based activity. The following reports were developed:

Volume 1: Forest land base, forest history and types, and forest ownership and inventory, 1984
Volume 2: The timber resource, 1985
Volume 3: The commercial timber harvest, 1985
Volume 4: The economic performance of the wood products industry, 1986
Volume 5: The economic importance of forest-based industries, 1986
Volume 6: Growth potential and development prospects for timber-based industries, 1987
Volume 7: The business climate for forest-based industries, 1987
Volume 8: Findings, conclusions, and recommendation, 1987

While the data are state-specific, of course, the method of assessment could be replicated in other states or regions. Furthermore, many of the conclusions and recommendations could probably apply equally well to state and rural substate units of government in many other areas.

SOURCE West Virginia University, Agricultural and Forestry Experiment Station, College of Agriculture and Forestry, Morgantown, WV 26505. Phone 304-293-4412. Free. Ask for Bulletin 691.

DOC. NO. 426 *A Guide to Exporting Solid Wood Products*

Westman, William W.

Washington, DC: U.S. Department of Agriculture, Foreign Agricultural Service, Forest Products Division, Agricultural Handbook No. 662, September 1988, 108 pp.

ANNOTATION This handbook provides a guide for U.S. wood products producers to develop a successful export marketing strategy. It covers how to obtain accurate and up-to-date export market information so that the production, scheduling, and shipping of wood products abroad can be done profitably. Sections discuss supply considerations, market considerations, pricing for export, financing exports, letters of credit and invoices, shipping, business organization, and sources of market information and assistance. About half of the publication consists of appendices. These include U.S. export trade data (1984-1988); examples of an "export brief," contact announcement, foreign importer listing, and buyer alert; state foresters; desk offices of the International Trade Administration; U.S. and foreign Commercial Service District Offices; a glossary; conversion units; shipping weights and volumes; and a bibliography.

SOURCE U.S. Department of Agriculture, Forest Products Division, Foreign Agricultural Service, Room 45545, 1400 Independence Avenue SW, Washington, DC 20250. Phone 202-382-8138. $4.00. An updated version of the handbook, written by Ms. Cynthia Evans, will be available in late 1989. Call or write to inquire as to the price of the 1989 version.

DOC. NO. 427 *Timber Management for Small Woodlands*

Goff, Gary R.; Lassoie, James P.; Layer, Katharine M.

Ithaca, NY: Media Services, Cornell University, Information Bulletin 180, undated, 57 pp.

ANNOTATION This publication provides a good overview of the terms, concepts, and results of forest and timber management activities by private landowners. It was written for forest owners in the state of New York, but much of the information would be widely applicable. Chapters address forest management, timber management, resource assessment, alternative management practices, harvest and sale of timber, and the economics of forest ownership (in New York). There are 14 appendices, with such information as standard measures and conversions, tree and log volume tables, sample contract, and explanation of several woodland management practices (e.g., pacing, using a scale stick, conducting a cruise tally, and developing a site index).

SOURCE Media Services, 7 Research Park, Cornell University, Ithaca, NY 14850. Phone 607-255-2080. Ask for 147IB180. $3.50.

DOC. NO. 428 *Secondary Forest Products Manufacturers Market Void Identification*

Tennessee Valley Authority

Knoxville, TN: Tennessee Valley Authority, Office of Natural Resources and Economic Development, 1986, 42 pp.

ANNOTATION This study identifies "market voids" in the input supply markets of secondary forest product firms--e.g., furniture, dimension parts, flooring, and kitchen cabinet manufacturers--in a nine-county area of east Tennessee, southwest Virginia, and western North Carolina. A market void was considered to exist if wood or nonwood products or services were found to be difficult to procure at market prices (with acceptable delivery schedules, service, and quality) from within the region.

Several opportunities were identified for expanding existing firms, attracting branch plants, or establishing new firms to supply goods and services to present manufacturers. The results are also useful for industrial development professionals seeking to improve the efficiency of existing area firms. The methodology used can be adapted to other geographic regions and offers an excellent starting point for a marketing and development program.

The appendix includes the detailed market void survey form used in the telephone interview as well as the cumulative survey data.

SOURCE Tennessee Valley Authority, Forest Resource Development Program, Norris, TN 37828. Phone 615-632-1657. No charge. You can also request a list of technical assistance publications; call 615-494-9800.

DOC. NO. 429 *Investment Opportunities in the Michigan Hardwood Dimension Industry*

Michigan Technological University

Houghton, MI: Michigan Technological University, January 1987, 80 pp.

ANNOTATION This publication was prepared to examine secondary forest product manufacturing industries that could be possible targets for expansion in Michigan. The goals included identifying a set of potential target products, forecasting demand, and comparing demand to current capacity. Products that appeared to have a projected capacity deficiency and that could be manufactured in Michigan were examined. Further analysis was performed to evaluate the feasibility of locating a plant to produce the selected products.

While the findings were specific to Michigan, most of the regional, state, and national data would be useful to localities in other states. The industry analysis, market analysis, technical and financial analysis, and locational comparisons would be useful to others as well. In addition, three plant designs were evaluated at two capacities to assess the financial opportunities available to dimension plant investors. Financial operating ratios and capital costs could be useful to other regions as well.

SOURCE Bureau of Industrial Development, Michigan Technological University, Houghton, MI 49931. Phone 906-487-2470. $5.00.

DOC. NO. 430 *Forest Products Industry Development Programs in the ANCA Area, New York State*

The Irland Group

Augusta, ME: The Irland Group, 1989, 58 pp.

ANNOTATION This report was prepared for the Adirondack North Country Association (ANCA) of northern New York. The report reviews the technical assistance programs funded by ANCA for the wood products industry, primarily grants to two RC&Ds in northern New York. These grants were to support technical and marketing assistance for forest-based industry. The strategy has been to help the industry see collective opportunities and make those opportunities as well as the industry's needs more widely known in the region's economic development community. The report does not discuss the resulting programs of the two RC&Ds, but it does contain useful and insightful overviews on the problems and opportunities in the ANCA region and on programs in other states (Michigan, Maine, and Pennsylvania). A section on "conflicts between development and other policies" raises key questions on the appropriate role of a development group regarding industry-specific assistance. Many of the recommendations of the report would be useful for any forest industry association.

SOURCE The Irland Group, 7 North Chestnut Street, Augusta, ME 04330. Phone 207-622-4023. Free.

DOC. NO. 431 *Prospects for High-Quality Hardwoods*

Irland, Lloyd C.

Augusta, ME: The Irland Group, undated, 15 pp.

ANNOTATION This interesting paper makes a strong argument for greatly intensifying management of forests for quality hardwoods, either with upgrades in product class through log size increases or stand quality improvements. Prospects for domestic and overseas markets are addressed, where land managers will be able to earn high returns in growing quality hardwoods "just because there is so little competition." The author points out the dramatic competition faced by the U.S. hardwood industry from tropical timber glutting world markets and suggests that North American hardwoods be marketed "as the way to have a fine dining room without contributing to the destruction of tropical forests and gene pools," and that forests be managed "in ways that would make even a conservationist comfortable" buying the product. The social stake in better hardwood management is also discussed in terms of the need for a renewable base and for manufacturing employment in rural areas that helps stabilize rural land ownership.

SOURCE The Irland Group, 7 North Chestnut Street, Augusta, ME 04330. Phone 207-622-4023. Free.

DOC. NO. 432 *The Lake States Forests—A Resources Renaissance*

Shands, William E., editor

Washington, DC: The Conservation Foundation, 1988, 221 pp.

ANNOTATION This book is the resulting publication of the 1987 Great Lakes Governors' Conference on forestry, which generated the over 20 papers in the book. The writings cover the Lake States forests from several perspectives: historical, economic, environmental, political, and social. Conference presentations stress the necessity for consensus building, leadership, economic diversification, and state and regional action, among other topics. The book is a good overview of the dilemmas facing the Lake States and rural forested areas elsewhere as well.

SOURCE The Lake States Forestry Alliance, E-1311 First National Bank Building, 332 Minnesota Street, St. Paul, MN 55101. Phone 612-291-0353. $3.00.

DOC. NO. 433 Materials on the economic impact of forestry in New York's Southern Tier

Owego, NY: Cornell Cooperative Extension, Tioga County

ANNOTATION Sample materials available from Cornell Cooperative Extension include a brochure, a summary of the finding from a study on the economic impact of forestry in the region, and the script of a 56-slide show used to educate citizens of the region as to the forest industry's potential. The materials would be useful to other forest development organizations in framing research programs.

SOURCE Debra Armstrong, Cornell Cooperative Extension, Tioga County, 56 Main Street, Owego, NY 13827-1588. Phone 607-687-4020. $2.00. Information on the loan of the slide set (*Woods to Goods: The Southern Tier Forest Industry*) is available from Film Library, SUNY College of Environmental Science and Forestry, Syracuse, NY 13210.

DOC. NO. 434 *Marketing Timber: How Can Landowners Realize the Potential of Timber Utilization?* (survey form only)

Reed, A. Scott

Cloquet, MN: University of Minnesota, Cloquet Forestry Center, 1988, 6 pp.

ANNOTATION This 13-question survey could be used in conjunction with the survey listed as Document No. 521 (primarily for crop and livestock producers) to determine if landowners in a rural area who wish to sell timber have adequate access to markets. The questions ask about the woodlands owned, reasons for ownership, past harvesting, plans for harvesting, sources of assistance, needed information, and interest in new marketing activities and programs.

SOURCE University of Minnesota, Cloquet Forestry Center, 175 University Road, Cloquet, MN 55720. Phone 218-879-4528. Free. A paper on the survey results entitled "Timber Marketing Development From Private Forests" is also available ($2.00).

DOC. NO. 435 *Lumber From Local Woodlots*

Edmonds, Robert L.; Wells, Grant D.; Gilman, Francis E.; Knowles, Stanley W.; Engalichev, Nicolas

Ithaca, NY: Northeast Regional Agricultural Engineering Service, Cornell University, NRAES-27, 1988, 42 pp.

SUBJECTS Forest land management, wood products

ANNOTATION This publication is designed to encourage the use of local woodlot resources for building construction and finishing. It provides an overview of the woodlot-to-lumber process. Topics discussed include wood properties, woodlot management, harvesting timber, contracting with loggers and sawyers, sawing methods, lumber drying, and lumber storage. Appendices list sources of building plans and use requirements (e.g., bending strength, weathering qualities) for various structural components. There is also a list of further references.

SOURCE Northeast Regional Agricultural Engineering Service, Cornell University, 152 Riley-Robb Hall, Ithaca, NY 14853. Phone 607-255-7654. Ask for NRAES-27. $4.75.

DOC. NO. 436 *Enhancing New York's Forestry Industry: A Targeted Approach*

New York State Legislative Commission on Rural Resources

Albany, NY: New York State Legislative Commission on Rural Resources, February 1988, 13 pp.

ANNOTATION This report summarizes a commission meeting in November 1987 which brought together legislative staff, state agency officials, representatives from state forestry associations, and the forestry industry. One purpose of the meeting was to identify opportunities to realize more of the state's forest resource potential. The report is included here because it provides some useful capsule summaries of programs in different regions of the state that are promoting forest product use. It also describes briefly some noteworthy forestry initiatives in other states, specifically West Virginia, Illinois, and Vermont. Suggested state actions in forestry education, secondary processing, resource assessment, agency restructuring, taxation, and research are listed. The report could provide a good background for rural regions seeking greater state support for forest-related initiatives.

SOURCE New York State Legislative Commission on Rural Resources, Legislative Office Building, Albany, NY 12247. Phone 518-455-2544. Free.

DOC. NO. 437 *Final Report on the Master Woodland Manager Pilot Project*

Fletcher, Rick

Corvallis, OR: Oregon State University, Extension Service, Benton County Office, undated

ANNOTATION This paper reviews a pilot project that was implemented in western Oregon in 1982. Nonindustrial, private woodland owners were given advanced level forestry education. In exchange, they volunteered their time to visit with other landowners to promote forest management. The paper describes the pilot project's approach, selection of volunteer master woodland managers (MWMs), and the training.

The appendix includes the screening questionnaire, questionnaires to the MWMs. The report would be very useful to organizations wishing to encourage networking among forest owners, cooperatives for forest management, and outreach programs on forest management.

SOURCE Rick Fletcher, Extension Forestry Agent, 2720 Northwest Polk Street, Corvallis, OR 97330. Phone 503-757-6750. Free. Updated materials will also be sent.

DOC. NO. 438 *Wisconsin Woodlands—Marketing Timber*

Lapidakis, Jerry; Martin, A. Jeff

Madison, WI: Department of Agricultural Journalism, University of Wisconsin-Madison, undated, 5 pp.

ANNOTATION This publication summarizes the questions a landowner should answer before deciding to sell timber, and the steps he or she should go through in planning the harvest. A sample timber sale contract is included.

SOURCE Agricultural Bulletin Building, 1535 Observatory Drive, Madison, WI 53706. Phone 608-262-3346. Free.

DOC. NO. 439 *Adapting to the Environment*

Brewer, Kathryn

Journal of Forestry 86:7 (July 1988): 5-6.

ANNOTATION This article describes the activities of the Forest Trust, a nonprofit resource management firm based in Santa Fe and a sponsored project of the Tides Foundation. The Trust's forestry development program is located in a depressed area of northern New Mexico, Mora County, where the Mora Forestry Center provides educational and extension services to youth and adults in a three-county area. The Center seeks to impart technical and business skills that enable participants to expand part-time, resource-based employment opportunities.

The Forest Trust conducted a comprehensive market analysis to determine markets for small-scale forest products throughout the Southwest. The Trust has also developed data base listings of large landowners, mill owners and operators, contractors, and lumberyards. The model and its projects could be very useful for groups pursuing forest development initiatives.

SOURCE Send stamped self-addressed envelope to the Forest Trust, P.O. Box 519, Santa Fe, NM 87504-0519. Phone 505-983-8992. An informative 12-page two-year report on the Trust's activities is also available. Free.

DOC. NO. 440 *Economic Evaluation of a Residue System (EERS): A Model for Analyzing the Economics of Installing a Steam Kiln and Wood-Fired Boiler at a West Virginia Sawmill*

Walton, David R.; Patterson, David W.; Armstrong, James P.

Morgantown, WV: Agricultural and Forestry Experiment Station, West Virginia University, Bulletin 696, 1987, 23 pp.

ANNOTATION Kiln drying is the first step in adding value to hardwood lumber once it is sawn. Not only is the value of lumber increased but also the marketplace is expanded significantly. A study was conducted at West Virginia University to develop a computer decision model to help sawmill owners determine the economic feasibility of installing dry kilns and sawmill residue-fueled boilers. This bulletin identifies the key factors in developing a useful economic analysis and presents the user's guide for the *Economic Evaluation of a Residue System (EERS)*.

The *EERS* is an interactive economic analysis program designed for use by sawmill owners who are considering installing a conventional steam-heated dry kiln and a wood residue-fired boiler. With some modification to the tax computational subroutine, the program may be used in any state. Woods which may be entered into the program as it currently exists are red oak, hard maple, yellow poplar, ash, walnut, basswood, white oak, soft maple, birch, cherry, beech, and butternut. *EERS* was written in Applesoft Basic on an Apple II+ microcomputer. A data preparation work sheet and a work sheet on lumber volume and prices are included.

SOURCE Mailing Room, Communications Building, West Virginia University, Morgantown, WV 26506. Phone Mildred Spangler, 304-293-6366. Ask for Bulletin 696. Free.

DOC. NO. 441 *Wood Residue From the Forest Products Industry in West Virginia: Amounts, Location, and Availability*

Patterson, David W.

Morgantown, WV: Agricultural and Forestry Experiment Station, West Virginia University, Circular 145, 1988

ANNOTATION This publication reports on a study of the types, amounts, and location of available wood residue in West Virginia. Such listings are essential to assist in feasibility studies for wood energy systems. The procedures used to collect the data, tabulation, results, and conclusions are presented. Appendices list statewide residues, sawmill residues by county, secondary industry residues by county, wood residues by county and forest administrative district, and the residue survey. Such a survey would be very valuable in regional or state planning to attract or develop new wood-based and nonwood industries that could utilize such residues for feed stock or fuel source.

SOURCE Mailing Room, Communications Building, West Virginia University, Morgantown, WV 26506. Phone Mildred Spangler, 304-293-6366. Ask for Circular 145. Free.

DOC. NO. 442 *A Forest Industry Park as a Strategy for Rural Economic Development*

Mater, Dr. Jean

Corvallis, OR: Mater Engineering Ltd., 1989, 18 pp.

ANNOTATION This paper was prepared for Midwest Research Institute as part of a study on natural resource-based rural economic development for the U.S. Economic Development Administration. Sections include a description of forest industry parks and their potential contribution to a rural area's economy, pitfalls to avoid, sources of funding, park management requirements, advantages to small and start-up companies, location factors, land requirements, and prospective tenants. The text is very readable and gives quite a good introduction and overview on the subject of forest industry parks as a rural economic development strategy.

SOURCE Economics Reference Center, Midwest Research Institute, 425 Volker Boulevard, Kansas City, MO 64110. Phone 816-753-7600. Request Technical Paper No. 3 in the Rural Natural Resources Development Series.

DOC. NO. 443 *A Guide to Rural Economic Development Through Forest and Wildlife Resources*

Monaghan, Tom

Mississippi State, MS: Cooperative Extension Service, 1989, 25 pp. plus 27 pp. of appendices

ANNOTATION This paper was also prepared for Midwest Research Institute as part of the natural resources in a rural economic development study for the U.S. Economic Development Administration. Presented in a question/answer format, the text and appendices cover a wide range of technical assistance topics on why and how rural areas can pursue forest and wildlife resource development.

SOURCE Economics Reference Center, Midwest Research Institute, 425 Volker Boulevard, Kansas City, MO 64110. Phone 816-753-7600. Request Technical Paper No. 4 in the Rural Natural Resources Development Series.

DOC. NO. 444 Series of publications on small enterprises utilizing forest resources

Monahan, Ralph

Medford, WI: U.S. Forest Service, Northeastern Area State and Private Forestry, 1990, approx. 11 pp. each

ANNOTATION A series of short publications are being written in 1990 to provide specific information on opportunities that permit the profitable utilization of forest resources. Two that are already available are:

- *Prospectus: Manufacturing & Marketing Packaged Firewood* (February 1990), 11 pp.
- *Prospectus: The Feasibility of Mini Sawmills* (February 1990), 9 pp.

They provide very specific suggestions on equipment (item, cost, useful life, annual cost), prices, labor requirements, production rates, and projected operating statements and cash flow.

Although each prospectus was written using data for the lake states, the concepts developed are applicable nationwide.

SOURCE Ralph Monahan, Forest Products Technologist, USFS-NA-S&PF, 850 North Eighth Street, Highway 13, Medford, WI 54451. Phone 715-748-4875. Free.

ADDITIONAL NOTE

The following publications were received too late for inclusion in the bibliography but are very good resources.

Jones, Stephen B., and Mary Carol Koester, *Evaluation of State and Interstate Programs to Encourage Forest Resource Based Economic Development*, December 1989, 220 pp. Available from Stephen Jones, 110 Ferguson Building, Penn State University, University Park, PA 16802. Phone 814-865-3803. Free while supplies last.

The North Twenty RC&D Councils, *Wisconsin Forest Products Industry Siting Guide*, May 1989, 32 pp. Also the Final Report on *The Wisconsin Forest Products Industry Siting Study*, June 1989, 61 pp. Both are available from The North Twenty, 153 South Second Street, Suite 202, Medford, WI 54451. Phone 715-748-2008. $15 for both.

USDA Forest Service, Cooperative Forestry, *Rural Development Opportunities in Special Forest Products*, November 1989, 20 pp. Available from Economics Reference Center, Midwest Research Institute, 425 Volker Boulevard, Kansas City, MO 64110. Phone 816-753-7600. $5.00.

IV. A Guide to Rural Economic Development Through Agriculture and Aquaculture

IV. A GUIDE TO RURAL ECONOMIC DEVELOPMENT THROUGH AGRICULTURE AND AQUACULTURE

Rural economic development groups have long overlooked agriculture as an industry suitable for development. Yet, agriculture is one of our largest industries and an important source of jobs and income for many rural communities. There are many opportunities for rural areas to enhance and expand agriculture. This section discusses several such opportunities, including aquaculture.

ISN'T AGRICULTURE A DECLINING INDUSTRY?

Agriculture has had its share of ups and downs. The decade of the 1980s was particularly hard for agriculture with the loss of many family farms. Rural agricultural employment and income have been in a long and at times tumultuous decline since the beginning of the industrial revolution. When people think of agriculture, they think of a declining industry. Unfortunately, agriculturalists sometimes talk more about saving agriculture than developing or expanding agriculture.

Agriculture, despite declines, is still a large industry. U.S. net farm income in 1987 alone was over $46 billion, and that includes income made only on the farm.[1] International exports of U.S. agricultural products were a record $21 billion in 1988.[2] In 1987 alone Americans spent $374.6 billion on U.S. farm goods.[3] The food marketing system employs 12 million people full-time.[4] In short, agriculture is an industry that produces jobs and brings in new income to rural areas. More important, ongoing changes in technology, consumer preferences, and world markets present numerous opportunities for rural areas to revitalize their economies through agricultural development.

HOW CAN AGRICULTURE REVITALIZE A RURAL AREA?

The fact is, the decline in farming masks the opportunities that are available in the agricultural industry. While not all rural communities will be able to revitalize their agricultural economy, many will and in fact already have created new economic growth through agriculture.

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[1] U.S. Department of Agriculture, Agriculture and Rural Economy Division--Economic Research Service, *Economic Indicators of the Farm Sector: State Financial Summary, 1987*, 1988.

[2] U.S. Department of Agriculture, Economic Research Service, *World Agriculture: Situation and Outlook Report*, March 1989.

[3] U.S. Department of Agriculture, Economic Research Service, *National Food Review*, April-June 1988.

[4] U.S. Department of Agriculture, Economic Research Service, *National Food Review*, Fall 1986.

Let's consider a few examples. Fruitland, Idaho, recruited an onion processing plant that adds value to the local onion crop and provides approximately 100 new jobs. In southwest Minnesota, corn farmers created Minnesota Corn Processors, a corn-wet milling cooperative that produced $50 million in sales and 100 new jobs. Kirkwood Community College in Iowa is helping rural farm families to diversify their operations, which has already resulted in over 35 new farm-based enterprises involving an estimated 130 local people. At the state level, Missouri's AgriMissouri marketing program has increased the sales of Missouri-produced agricultural products as much as 60 percent at major grocery store chains. The federal government is encouraging the development of promising industrial uses of agricultural products; one example--guayule, a small desert shrub and a source of natural rubber--offers the potential of replacing up to 25 percent of our nation's imported rubber (about $210 million in potential sales for rural America). Already a pilot guayule production plant operated by Firestone is testing the production techniques and commercial viability.

Agriculture and rural area economies have long been intertwined and will remain so for many rural areas into the foreseeable future. Unfortunately, many rural areas have seen their agricultural economic base as a liability that must be overcome rather than an asset that can expand jobs and income.

WHAT IS REALLY MEANT BY THE AGRICULTURE INDUSTRY?

Obviously, we are talking about more than just farming. The agriculture industry involves the production, processing, marketing, and distribution of crops and livestock for both food and nonfood uses.

IF AGRICULTURE PRESENTS SUCH OPPORTUNITIES, WHY HAVE RURAL COMMUNITIES OVERLOOKED AGRICULTURE IN THEIR ECONOMIC DEVELOPMENT EFFORTS?

Unfortunately, most economic development efforts have overlooked agriculture as an industry suitable for development. Where agricultural development has been pursued, it has usually been a separate effort from the area's broader economic development efforts. In part, this tendency to overlook agriculture has its roots in early efforts to diversify rural America's agricultural base with manufacturing. And, given the slow decline in agricultural employment, it is no surprise that economic development groups have looked upon agriculture as part of the problem rather than an industry to be retained and expanded.

But while most communities have done little outright to support agriculture, others have strived hard to retain and expand their agricultural base. You can get several examples from some of the technical assistance publications in Section V, such as Document Nos. 508 and 549. Today it is not uncommon to see rural communities hard at work at attracting new food processing plants or developing farmers markets.

WHY SHOULD WE LOOK TO AGRICULTURE WHEN WE ARE TRYING TO DIVERSIFY?

You should not exclude agriculture, nor should you exclude other good prospects. The important point is that the agriculture industry may well be viewed as a "good prospect." Agriculture is primarily a rural industry that most rural areas can further develop. Unlike manufacturing and service industries, many of which are better suited to urban environments, agriculture is one industry that depends on rural characteristics. Often rural communities, when trying to develop manufacturing or service industries, must convince prospective investors that their rural areas can meet their needs for labor, supplies, water, transportation, communication, waste disposal, and ease of access to markets. And sometimes rural areas cannot meet those needs, or if they meet those needs, it is at great expense.

The agricultural industry, on the other hand, is obviously linked to rural areas. Food processing is often more efficient if it is near its sources of raw agricultural products. Producers of agricultural machinery, supplies, seed, and chemicals often prefer rural areas for their quality labor force, proximity to experimental and demonstration farms, and interaction with the farmers they serve. And many agricultural enterprises that can be urban-based often locate in rural areas just because of their concern for rural America.

Another reason to choose agriculture is that many of the opportunities for new job and income growth in agriculture can be developed with local resources. There is no need for relying on decisions by those who live outside the rural area on whether or not new jobs and income will be created. The only limiting factor is the drive and ability of local citizens to improve existing agricultural enterprises or to create new agricultural enterprises.

Finally, the fact that the agricultural industry is changing so rapidly means there are new opportunities for rural areas to create new jobs and more income. Rural areas that closely study the agriculture industry can quickly identify strategies to generate more employment and income through agricultural resources.

ARE YOU SUGGESTING WE ABANDON EFFORTS TO DEVELOP NON-AGRICULTURALLY RELATED MANUFACTURING AND SERVICE INDUSTRIES IN FAVOR OF DEVELOPING AGRICULTURE?

No. Manufacturing and service (including tourism/recreation) industries are also important to most rural areas, and like agriculture they offer opportunities for expansion and new growth. Like agriculture, many manufacturing and service firms are well suited to rural areas, while others can operate profitably in either a rural or urban setting. Often manufacturing and service firms are attracted to rural areas because of quality-of-life considerations.

What we are suggesting is that rural areas not overlook agriculture as an industry for development. Manufacturing and services are not the only opportunities for rural economic development. For many rural areas, revitalizing their agricultural economy will represent a better short- and long-run strategy for creating economic growth than manufacturing or service industry development. In some rural areas, agricultural development is one of the few viable options for economic development. For most rural areas, agricultural development can be an important component of an economic development program.

WHAT KINDS OF STRATEGIES WOULD REVITALIZE OUR AGRICULTURAL ECONOMY?

Rural areas have three broad options for revitalizing their agricultural economy. These options are:

- Strengthening the existing agricultural base.
- Focusing on value-added production.
- Diversifying through alternative agricultural products.

Most rural areas will find each option offers promise for developing new agricultural jobs and income. In fact, many rural areas already have--to some limited extent--some individual or group pursuing these options. However, it is a rare rural area that is pursuing these options systematically or as part of the broader economic development efforts of the area.

HOW CAN OUR RURAL AREA STRENGTHEN THE EXISTING AGRICULTURAL BASE?

This strategy would focus on getting the most income and employment possible from existing agricultural enterprises. Such a strategy would study traditional agricultural production such as corn and beef in light of new possibilities for profit. Better management practices, more aggressive marketing, reduced production costs, or increased quality could help ensure that an area's traditional agricultural products remain important sources of employment and income for the area. Both domestic and export markets offer opportunities for strengthening local agricultural production.

One example of a way to strengthen existing agricultural production through better management is the efforts of the College of Southern Idaho. The community college's farm business management program has strengthened the financial position of approximately 68 farm operations since its inception, and there has been a three-year waiting list to participate in the program.

HOW CAN OUR RURAL AREA IMPROVE MARKETING?

Improving marketing involves the expansion of existing markets, the development of new markets, and any effort that increases the price received for local agricultural products. The goal of marketing is to increase income through higher sales volumes and/or higher prices received for sales. Rural areas can have an impact on improving marketing of locally produced agriculture products. Options include:

- Farmers markets.
- Pick-your-own farms.
- Growers cooperatives.
- Differentiation of agricultural production.
- Improving rural infrastructure.

Farmers markets and pick-your-own farms focus on selling agricultural products in the local or regional market. Rural areas with an abundance of small farms may find both farmers markets and pick-your-own farms offer real opportunities for improving farm income. Farmers markets and pick-your-own farms enable area farmers to often receive a higher price for their produce, as well as keep local food shopping dollars in the area longer (not to mention providing higher-quality food to local consumers). You could also encourage formation of a spin-off group or support organization to do an ag market search for your region, initiate a farmer-to-consumer directory, or develop a farm tour map, to give just a few examples.

WHAT GUARANTEE OF SUCCESS DO FARMERS MARKETS AND PICK-YOUR-OWN OPERATIONS PROVIDE?

None. Just like any business enterprise, farmers markets and pick-your-own farms have no guarantee of success. Competition, economic conditions, management and marketing skills, and level of commitment to making it work are factors that will impact the success or failure of either a farmers market or a pick-your-own farm. Plus, pick-your-own farms often require hard work to maintain year-round production of several varieties of crops.

HOW CAN GROWERS COOPERATIVES IMPROVE MARKETING?

Growers cooperatives are one alternative to improving markets for large farms as well as small farms. Growers cooperatives can be used to market both traditional products and alternatives. Growers cooperatives turn farmers into a single seller with more bargaining power to acquire a good price from buyers. Sugar, honey, tobacco, fruits and vegetables, and grains are just a few of the agricultural commodities that have benefited from the creation of growers cooperatives.

Furthermore, growers cooperatives bring together resources of all area producers, enabling the cooperative to invest in facilities and equipment such as storage facilities and cleaning, sizing, and grading operations that extend the marketing season and add value to local production. Cooperative resources can also be used to acquire specialized production equipment that can be shared among producers, process agricultural products into intermediate and final products, and conduct research to improve production and develop new products. For example, major processing-marketing cooperatives, such as Sunkist (citrus fruits) and Ocean Spray (cranberries), constantly develop new food products to maintain market demand for their commodities.

HAVEN'T COOPERATIVES DECLINED IN THE PAST FEW YEARS?

Many rural communities have seen local farmers cooperatives die, but their deaths were not caused by inherent problems with cooperatives. Rather, they were suffering the same fate that all agricultural supply and service businesses suffered. When farm purchases dwindle, agricultural suppliers and services hurt. While growers cooperatives offer farmers many advantages, it is important to keep in mind that a cooperative is just another form of business; like any business, it faces risk. Creation of a cooperative--whether for the purposes of marketing, processing, or provision of supplies and services--requires a great deal of research to determine feasibility.

WHAT DO YOU MEAN BY DIFFERENTIATION OF LOCAL AGRICULTURAL PRODUCTS?

Differentiation of local agricultural products involves creating a unique marketing characteristic of a local commodity. Any effort to differentiate a locally produced commodity in terms of freshness, appearance, taste, size, uniformity, nutritional value, price, and any other relevant feature will likely increase its value and market.

WHAT'S AN EXAMPLE OF PRODUCT DIFFERENTIATION?

Vidalia, Georgia, produces a uniquely sweet yellow onion, the Vidalia onion, which attracts both individual and business buyers from across the country. In this case, product differentiation is provided by courtesy of nature: the Vidalia soil has properties that produce the unique Vidalia flavor. However, small changes in production practices to increase quality or a little local value-added processing will enable a rural area to differentiate its local production.

A current opportunity for differentiation is organically produced (chemical-free) agricultural products. Popular concern over the health effects of pesticide and herbicide residues on food is beginning to stimulate demand for organically produced food. Farm operations that begin the process of organic certification now may capture early large profits and continue to be profitable because of efficiencies gained through experience.

HOW DO WE DEVELOP A DIFFERENTIATING CHARACTERISTIC IN OUR AGRICULTURAL PRODUCTS?

Largely through creativity. Like the development of any new product or any product improvement, it requires discovering what consumers value or would want if something new were available. A good place to begin is to identify any differences that exist between local agricultural production and from production elsewhere. Sometimes a rural area is already producing an agricultural commodity that has a valuable differentiating characteristic, but there is no effort made to market the characteristic. Even small differentials, such as where a crop is produced, can often add value to an agricultural product.

As an example, many state governments are now trying to differentiate in-state produced crops and livestock from out-of-state products by labeling in-state food products with state logos such as "AgriMissouri" or "From the Land of Kansas." In-state buyers take pride in supporting area farmers. Therefore, simple state labeling programs can add a differentiating value to local production. For instance, even though there may be virtually no physical differences in beef raised in Texas versus beef raised in Colorado, many Colorado buyers will prefer to buy Colorado-raised beef over Texas beef.

HOW DO INFRASTRUCTURE IMPROVEMENTS AFFECT MARKETING?

Improvements in rural infrastructure--both public and private--are another avenue for improving marketing. Many rural areas are isolated from the national and international markets they serve. Modern transportation facilities (rail, highway, water, and air) may lower the cost of getting local agricultural production to market and make deliveries more speedy and flexible. State-of-the-art telecommunications enable rural areas to efficiently communicate with agricultural markets and acquire up-to-the-second market data, as well as take advantage of new marketing technologies such as the increasingly popular teleauctions. Efficient and modern agricultural product storage, handling, and processing facilities permit rural areas to customize deliveries and maintain product quality. Additional infrastructure considerations include agricultural testing laboratories to improve quality, high-quality education and technical assistance services, and special financial assistance programs that encourage innovation.

CAN AGRICULTURAL COSTS BE REDUCED?

Certainly! Today continuing refinements and breakthroughs in mechanization and management are coupled with promising technologies which include:

- Biotechnology.
- No- and low-till agriculture.
- Integrated pest management.
- Diversified farming.
- Food processing.
- Food storage and preservation.
- Handling and transportation systems.
- Computers and information.
- Irrigation and water conservation.

Technological innovations will continue to offer agriculture possibilities for reducing input costs and improving productivity.

ISN'T AGRICULTURAL TECHNOLOGY THREATENING THE ENVIRONMENT AND EVEN THE FUTURE OF AGRICULTURAL PRODUCTION?

The reliance on chemicals and mechanization is being called into question by both those in agriculture and those outside of agriculture. Fuels and chemicals are no longer so inexpensive both because of price increases and the negative impacts that chemicals and mechanization are having on the environment and the subsequent sustainability of farming. Both economic and environmental sustainability has become a major issue creating a new agricultural field of inquiry called "sustainable agriculture" or "low-input sustainable agriculture (LISA)."

While it is unlikely that the heavy use of fuel and chemicals will decrease significantly in the near future, the new technologies discussed above are enabling agriculture to maintain and often increase production while lowering input costs and improving environmental quality.

HOW CAN OUR AREA ENCOURAGE THE ADOPTION OF NEW AGRICULTURAL TECHNOLOGIES THAT REDUCE COSTS AND IMPROVE THE ENVIRONMENT?

Rural leaders can help speed the adoption of beneficial technologies by creating an environment that facilitates and encourages the free flow of ideas and information.

Specific examples for creating such an environment include:

- Create area educational programs on new technologies. Extension and local colleges and community colleges can often design excellent programs.
- Sponsor special agricultural technology shows or fairs that demonstrate new equipment and processes.
- Publicize the efforts and successes of early innovators; encourage demonstration plots and field tours of innovative farms.
- Ensure that technical assistance is available to guide new efforts.
- Make available special financing programs to encourage technology adoption; many states now have special agricultural loan programs.

I UNDERSTAND THE CONCEPT OF STRENGTHENING THE EXISTING BASE. HOW WOULD WE HELP ADD VALUE TO OUR AGRICULTURAL PRODUCTION?

Adding value to agricultural production can greatly expand the economic impact of local agricultural production as well as often provide more stable markets for local farmers. As most farmers will tell you, increases in food prices seldom reflect increasing revenues received by farmers. Much of the growth in agriculture has been in the food processing industry. Americans demand more prepared and ready-to-eat food products, which has led to ample growth in the food processing industry.

Adding value to agricultural products is one of the best prospects for rural areas to revitalize their economies. Even small efforts such as vegetable cleaning and sizing operations can have a big impact on the amount of outside income a rural area can earn. For example, Calavo Growers of California, a 2,500-member avocado growers cooperative, has greatly expanded sales of avocados by adding value to their product through innovative processing techniques and aggressive marketing; sales have increased from $6.1 million in 1981 to over $25 million in 1988.

HOW CAN WE IDENTIFY VALUE-ADDED OPPORTUNITIES FOR OUR AGRICULTURAL PRODUCTION?

There are three steps you need to follow to identify value-added opportunities. They are:

- First, list locally produced agricultural products and identify those products that are ready to be consumed when they leave the community and those that are furthered processed or are used as a raw material before consumption.
- Second, research the economic and technical feasibility of adding value to each agricultural product that leaves the area in need of further processing.
- Third, take those value-added opportunities that appear to be locally feasible and explore what it will require to develop businesses to take advantage of the opportunities.

HOW DO WE RESEARCH THE ECONOMIC AND TECHNICAL FEASIBILITY OF VALUE-ADDED OPPORTUNITY?

There are four important considerations in determining the feasibility of a value-added opportunity. They are:

1. Determine the market potential of the value-added product. Is the market competitive; is it local, regional, national, or international; is the market accessible; and is the market growing or declining?

2. Identify required inputs. Are they available locally, are quantity and quality sufficient, and what are the costs?

3. Research processing efficiency. Identify available processing technologies, costs, requirements for labor skills and knowledge, and availability of service and technical assistance. Determine if the local area can support the processing technology required.

4. Determine financing needs and assess whether financing needs can be met either locally or from outside investors (including state and federal financing).

It is important to note that it will not always be easy to find the information necessary to determine economic and technical feasibility. For some value-added opportunities, it may take considerable time and effort to determine their feasibility.

ONCE WE HAVE DETERMINED SOME VALUE-ADDED OPPORTUNITIES ARE POTENTIALLY FEASIBLE, WHAT'S NEXT?

If there are some potentially feasible value-added opportunities, then prospective business developers who can turn the opportunity into reality need to be identified. Prospective business developers may include:

1. Local entrepreneurs--either individuals or groups. One possibility includes forming an agricultural cooperative to combine the resources of area farmers, like the corn farmers in southwest Minnesota.

2. Existing local businesses. Often existing businesses (particularly existing agricultural processors) may be interested in expansion opportunities or new operations. Communities that can show the feasibility of a value-added opportunity may find considerable interest from existing businesses.

3. Outside businesses or investors. If there is solid evidence of feasibility, nonlocal business may be interested in capturing the opportunity. Fruitland, Idaho, attracted an onion processor by making its value-added opportunity known.

Managerial ability will be a critical element of success of any value-added opportunity. This element should not be ignored when identifying prospective business developers, especially if local economic development financial resources are going to be invested heavily to finance the project. Technical feasibility and economic feasibility in themselves are not enough to ensure the success of a value-added business.

EXPLORING VALUE-ADDED OPPORTUNITIES SOUNDS COMPLICATED. SHOULD WE SEEK OUTSIDE ASSISTANCE?

Not all value-added opportunities require a great deal of expertise to explore, but many do and may require expertise that does not exist locally. Fortunately, there are usually several sources of assistance. A good starting place for assistance is the Cooperative Extension Service or the state Department of Agriculture. Other sources of assistance that also frequently prove valuable include:

- Local colleges and community colleges.
- Many state agencies responsible for economic development now have excellent business planning and analysis departments that can assist communities.
- Many farm organizations and associations also provide technical assistance.

For communities wanting to evaluate value-added projects, there are materials in the bibliography to assist you, such as *Framework for Evaluating Proposed Value-Added Agribusiness Projects* by the University of Wyoming College of Agriculture and Cooperative Extension System (Document No. 520).

WHAT DO YOU MEAN BY ALTERNATIVE AGRICULTURAL PRODUCTS?

Rural areas can diversify their agricultural base by seeking out alternative agricultural products that can be produced locally. Alternative products could include anything that is not currently produced locally. It is not limited to exotic or unusual products. Alternative agricultural products may allow local farmers to access new markets that may be both more profitable and stable. Developing alternative agricultural products requires extensive market research to identify markets and to secure buyers as well as technical assistance to ensure efficient and effective production.

Many new uses for plant and animal species are being discovered that broaden the possibilities for agricultural production. Developments in biotechnology promise to open up many new opportunities for alternative crop and livestock production, especially for nonfood uses such as industrial lubricants. Furthermore, many forgotten agricultural products (for example, specialized livestock) offer possibilities for specialty food and fiber production.

The agricultural community can be encouraged to consider diversification through programs that highlight others' experiences and provide easy access to step-by-step guidance in a planning process. Often these programs are conducted through the Extension Service in conjunction with a local community or technical college. The development organization could ensure that such programs were available, convenient, and well publicized, for example. Or the organization could request that the state provide a current resource guide on all available sources of financial and technical assistance available to individuals interested in ag diversification. If there were broad interest in a new crop, the area development organization could request and then help disseminate a feasibility study, probably from the state land-grant university. It could assist the area farmers form a specialty growers association. It could organize an ag diversification conference in the region. Really, there are a great many possible entry points. The technical assistance publications in the next section will give you a great number of ideas.

IS THERE REALLY A MARKET DEMAND FOR ALTERNATIVE AGRICULTURAL PRODUCTS?

It depends on the alternative agricultural product. Market demand can arise from either the consumer or the producer. Alternative products are demanded for a variety of reasons. Reasons include:

1. Demand for new products and uses. Researchers and entrepreneurs are creating a constant flow of new agricultural products and uses of traditional agricultural products. New products and uses satisfy consumer demand for variety, as well as often meet an important unfulfilled demand such as a new drug to combat disease. There are millions of plant and animal species that offer untold food and nonfood products. Industrial (nonfood) use of agricultural products is a rapidly developing new area of alternatives, including new uses of traditional crops.

2. Demand for existing products spurred by fads, new interests, and new values. The growth in shiitake mushroom and broccoli production illustrates demand created by consumer interest in new dishes and health food.

3. Potential for substituting for existing products that are more expensive or lower in quality. Soybean oil-based printing inks have several superior qualities over petroleum oil-based printings and may someday replace petroleum oil-based inks.

4. Potential for substituting imported agricultural products. Locally produced products often offer price and quality advantages over imports.

5. Changing technology. Technology changes not only what can be produced and where, but it creates demand for new agricultural products and new uses of old agricultural products. Corn starch used in plastic production to aid in the biological breakdown of plastic bags is an example of new technology creating a demand for a traditional agricultural product.

AREN'T ALTERNATIVE AGRICULTURAL PRODUCTS RISKY? IS THERE REALLY ROOM FOR MORE THAN A HANDFUL OF PRODUCERS OF EACH ALTERNATIVE?

Once again, it depends on the product. Alternatives that are competing against existing products will have to find cost or quality advantages in order to survive. Entirely new products or uses will have to stimulate market demand and may face technical production challenges. For example, a new health food product may take several years to win consumer acceptance. As noted above, many alternative products are only alternatives locally and are produced in vast quantities elsewhere; it may be very difficult to compete against nonlocal production even in local markets.

For many alternative agricultural products there is very little room for large-scale production. Alternatives such as fruits and vegetables usually have only a local or regional market potential, and even penetrating the local and regional market requires extensive effort.

ARE THERE ANY EXAMPLES OF ALTERNATIVE AGRICULTURAL PRODUCTS BECOMING REALLY SUCCESSFUL?

Soybeans are a perfect example. Today soybeans are hardly an alternative agricultural product, having become one of America's most important commodities. But if you go back 30 years, you would find very few producers. Through technological innovation and aggressive marketing, soybean products are now used in numerous food and nonfood products.

Catfish farming is another example. In many areas of the South, catfish production has become a major industry, and it is becoming strong in other areas of the nation.

HOW DO WE ENCOURAGE THE DEVELOPMENT OF ALTERNATIVE AGRICULTURAL PRODUCTS?

Encouraging the development of alternative agricultural products is much like encouraging the adoption of new agricultural technologies discussed earlier. In fact, alternative products and new agricultural technologies are interrelated, and activities to encourage technology adoption can encourage adoption of alternative products. These activities include:

1. Creating area educational programs on agricultural alternatives.
2. Sponsoring special shows or fairs to highlight both alternative agricultural products and agricultural technology.
3. Publicizing the efforts and successes of early innovators; encouraging demonstration plots and field tours of innovative farms.
4. Ensuring technical assistance is available to guide new efforts, especially critical efforts to tap existing markets or create new markets for alternative products.
5. Making available special financing programs to encourage alternative product adoption. Many states now have special agricultural loan programs.

IS A NEW ORGANIZATION ESSENTIAL IF AN AREA WANTS TO PURSUE AGRICULTURAL DEVELOPMENT?

It is virtually essential to encourage some framework for networking. For example, to encourage more value-added processing, one of the best strategies would be to form a regional food industry association to encourage retention and expansion of food enterprises.

Companies in the food industry produce jobs and, because of the linkage with agriculture, assist local efforts to make farming a profitable enterprise. The industry also helps save farmland. It can contribute significantly to diversification of rural economies, and it enhances the tax base. This industry can also contribute to a region's appeal to tourists by developing the potential for "recreational agriculture," i.e., pick-your-own operations, farm tours, and harvest trails connected with farm stands. Finally, the market niches created by consumer demand for fresh and wholesome food make the specialty and small processing end the fastest growing segment of the industry. In many respects, the industry is a good investment for a community or region.

WHAT ARE THE STEPS IN FORMING A FOOD INDUSTRY ASSOCIATION?

The first critical step would be to prepare a strategic economic analysis of your area's food businesses: on-farm and farm-related processors, the specialty food producers, and any small to medium-sized processors. Each of these sectors within the food industry shares a common theme: all are value-added processors, bringing more income and capital into a region and enhancing the value of agricultural commodities.

You would want to include the following in your analysis:

- An inventory of the types of enterprises currently in the area.
- A profile of the different segments of the industry (on-farm, specialty producers, and food processors).
- A summary of the needs--capital, business planning, marketing, scientific, etc.--of each enterprise.
- An assessment of existing infrastructure, services, and resources.
- An analysis of the capacity of the food industry in your region.

Community leaders should have a clear idea of the significance and both real and potential impact of the value-added sector after this analysis. And it should provide clear indicators of strategies for action.

WHO WOULD GET THE PROCESS GOING TOWARD A STRATEGIC ANALYSIS?

Developing the strategic analysis warrants careful consideration, particularly with respect to organization. This is because the analysis is actually the first step in forming an association. Issues are defined, the industry is examined in detail, opportunities and vision are created, and a blueprint for action is established. It is imperative, therefore, that key industry and public sector representatives be supportive and committed. They need to feel ownership of the process and the product in order for the analysis to be useful.

The process of organizing for the analysis begins with a staff person whose ultimate responsibility is the formation of the industry association. This individual would ideally work for one of the economic development organizations in the region (chamber of commerce, community development corporation, local university, or community college). That organization could donate the person's time as a contribution to the process of forming an association. Alternatively, the staff position can be created. In this case, funding should be a joint undertaking by both the economic development organizations of the area and several of the larger food industry businesses.

The importance of the staff position is twofold. Symbolically, it represents a tangible commitment on the part of public and private sector organizations in the region to the analysis and the idea of the association. Second, starting and nurturing a food industry association is not a part-time undertaking. Because of the scale of the organizing work ahead, it is essential that a full-time staff person be engaged in the effort.

WHAT WOULD THE ORGANIZER DO?

Once on board, the organizer's priority becomes the formation of a small but critically important Steering Committee, composed of 5 to 10 leaders from the region's public sector and the food industry. This committee forms the nucleus of the planning committee for the strategic analysis and lays the foundation for wider community involvement. Members of the committee are the public, visible leaders. They give the entire effort legitimacy and credibility. They become spokespeople to the media, and they represent the organizing effort to other community and business leaders. Steering Committee members should be selected with care.

The Steering Committee's first order of business is broadening its base and forming a larger Advisory Committee. The Advisory Committee should include key groups, organizations, and agencies in the region (e.g., job councils, chambers, higher educational institutions, banks, town and municipal officials, and the industry). The committee will consist of probably between a dozen to 20 people. In strategic terms, the Advisory Committee should represent everyone who has an interest in the food industry as well as everyone who benefits economically from it. The Advisory Committee enhances visibility and credibility and, if organized and administered properly, can be a very valuable source of information. The committee also provides guidance and direction in the strategic analysis process.

WHAT WOULD BE DONE WITH THE STRATEGIC ANALYSIS?

Once completed, the strategic analysis is the major organizing tool for the food industry association. It should become the vision, the blueprint for action, and the justification for investing in the industry's growth and expansion. It will also suggest issues and priorities that the association will need to be involved in. For example, typical recommendations of a food industry strategic analysis might include the following:

1. Strengthen the marketing capacity of food businesses.
2. Access debt and equity capital for those businesses looking to expand.
3. Create closer linkages within the industry.
4. Create regional and national market opportunities through participation in key trade shows.
5. Develop a data bank of locally and regionally available produce and fruits and dairy products.

WHAT WOULD BE THE FUNCTIONS OF A FOOD INDUSTRY ASSOCIATION?

The four needs which almost all food businesses have in common are (1) facilities in which to manufacture their product; (2) financing of both debt and equity; (3) business, engineering, and scientific assistance; and (4) markets in which to sell their goods. Each activity or service of the association should be designed to address one or more of these needs. Services of the Association could include:

- Referral service.
- Networking.
- Workshops.
- Shared promotional opportunities.
- Food trade shows.
- Products directory.
- Food and agriculture-related industrial park.

The following matrix gives a quick overview of which needs each of the services addresses. However, needs may vary from region to region and among different types of food businesses. A quick and concise written or telephone survey of members provides a good sense of members' needs.

HOW SERVICES OF A FOOD INDUSTRY ASSOCIATION ADDRESS THE NEEDS OF MEMBER BUSINESSES

	Needs			
Services	Manufacturing space	Financing	Technical assistance	Marketing
Referral service		X	X	
Networking	X	X	X	X
Newsletter	X	X	X	X
Workshops		X	X	X
Promotional opportunities				X
Trade shows				X
Products directory				X
Agricultural park	X			

Subsequent annual surveys will enable members to evaluate the effectiveness of the previous year's activities and prioritize those for next year. A sample is included in Appendix A.

Take advantage of informal opportunities for feedback and planning too. And be sure to publicize and implement the resulting suggestions so that members will see that their input is valued. They will be more likely to continue giving it when asked again.

1. A referral service that connects members to free or low-cost assistance and that links members with each other and provides timely information is an effective way to help individual businesses. In order to receive a referral, a business simply calls the association office and explains the need. Staff suggest the appropriate resource person(s) to contact, alert the contacts if needed, and monitor the progress. Evaluations sent out every quarter help ensure that the assistance offered meets the needs of the individual business.

   Assistance is likely to be most needed in the following areas: marketing, business and management, financing, food engineering, food science and nutrition, and industry regulations.

   The types of questions most likely to come from food businesses are: What kind of regulations and permits apply to constructing a commercial kitchen on my property? Why is my jelly not solidifying consistently when I never vary the process? Will my chocolate products sell better with or without nuts? Where can I get an emergency loan to replace the piece of equipment that just broke down? Who can help alter the design of this machinery so that it can better handle the consistency of my batter?

   The agencies and organizations that provide easy access to technical information and services include university extension agents, colleges of agriculture, state departments of agriculture, community development corporations, and local Small Business Administration programs. Faculty at colleges and universities can be particularly helpful as referral agents and often can enter a long-term (and student-assisted) contract, for example, with a business that needs a market study.

   Staff should keep a record of all referrals made and be prepared to do some research on questions that cannot be answered by any of the available resource people.

2. In addition to being the clearinghouse for technical referrals, the association can also serve as a network among industry members. Food businesses are often looking for locally available produce and fruit or may be interested in forming "product partnerships"--for example, a sauce producer teaming with a snack food maker. This kind of networking usually pays major dividends for association members.

3. A bimonthly or quarterly newsletter is a vehicle that can advertise markets, disseminate technical information, and announce workshops and trade shows. It can offer information on industry trends, resources for assistance, and profiles of some local members. A free classified advertising section will increase the newsletter's value and the networking among industry members. Another primary function served by the newsletter is that of publicizing the association. Like the products directory, it should be distributed not only to members, but to potential members, the press, and any agencies or organizations that need to be aware of the association's existence.

4. Workshops are another service that meet industry's needs. Typically, the information presented in workshops is generic to several businesses, and the format allows for more in-depth coverage of specific issues and questions. Sample topics are marketing through mail order; packaging materials options; financing strategies for food businesses; entering the European export market; and computer use for the small food business. Speakers can be secured either through in-house resources or through private industry.

Although eventually workshops can be used to help finance the food industry association, it is suggested that fees to attend workshops be minimal for the first year or two as with other services. A modest fee ($5 to $10) for members and a higher one ($10 to $20) for nonmembers is recommended.

5. Encouraging members to take advantage of shared promotional opportunities is another important service a food association can provide. An association can help businesses cooperatively promote their products and enter new markets that would be economically prohibitive if approached alone.

   On the local or regional level, agricultural fairs offer shared promotional opportunities, helpful especially to small or start-up businesses. The association can display and sell members' products directly to the consumer and have demonstrations for the public; for example, maple candy making, cow milking, apple cider pressing, or chocolate fruit dipping.

   Local grocery stores are also an ideal opportunity for shared promotion. The association can offer an attractive exhibit to store managers and buyers, thus securing media attention and publicity for the store while getting access to shelf space for a number of association members. This promotion is also a way for businesses to avoid paying the costly entrance or "slotting allowances" that are common today in many grocery stores.

6. The most effective vehicle to reach professional buyers, wholesalers, brokers, and distributors is the food trade show. An association can host its own once it is well established and certain to attract many exhibitors and buyers. Until then, there are many regional, national, and international shows to attend. Two of the biggest are the Gourmet Food & Beverage Show and the International Fancy Food & Confection Show, both of which are held twice a year. The Gourmet Food Show is on the west coast in the spring and on the east coast (New York City) in the fall. The Fancy Food Show is held on the west coast in the winter and on the east coast in the summer (New York City as of 1990). The Fancy Food shows are managed by the National Association for the Specialty Food Trade (based in New York City), and membership in the association is required of all exhibitors. Both of these shows attract buyers and exhibitors from all over the country.

   New York and California are generally the centers of the food industry markets. However, smaller shows are sponsored regularly by organizations such as restaurant and other food service associations, food industry publication companies, and businesses and associations that represent a specific facet of the food industry. The Philadelphia National Candy Show, Chicago Pizza and Pasta Show, National Food Distributors Association Annual Convention (in New Orleans in 1989), Kosher Fest (a New York City show), and American Culinary Federation National Convention (in Las Vegas in 1989) are all examples. All shows are publicized in food trade publications such as those listed in Appendix B. Each show tends to attract a specific group of exhibitors and buyers, so some research is recommended. Depending on how many members want to be involved in a given show and the costs, the association may choose to rent and staff booth space to represent a number of businesses or may want to simply facilitate reservations for a block of booths to be staffed by individual members. Often state departments of agriculture help fund booth space at trade shows, so be sure to check.

7. A products directory provides access to a wide but broadly defined market. The directory should list the business, phone, address, contact, company logo, and products. If produced in a well-designed and colorful format, the directory can help member businesses get access to the grocery stores, buyers, and distributors, in addition to restaurants, gourmet retail outlets, and even export markets.

8. Finally, food businesses are like most other businesses in their need for land and facilities to grow. This may be an important component in creating an infrastructure for a food industry. Without developable land at a reasonable price or access to adequate water and sewers, food businesses may be forced to relocate in another region or state. For this reason, the idea of a food and agriculture-related industrial park should be given consideration.

   The park would respond to the obvious need for room to grow and expand; and with tenant businesses all engaged in some form of food processing/production, it would provide cross-fertilization and networking advantages to businesses. Such advantages cannot be achieved in standard industrial parks or when food businesses are located alone. An association could spearhead the development of such a park.

HOW ABOUT FINANCING THE ASSOCIATION?

Choosing the appropriate source of funds to finance the association warrants careful attention. Public and private sources generally have strings attached and should be evaluated on the merits of what they would do for the survival and integrity of the association. Following are some general guidelines.

Internally Generated Funds

1. Membership dues. Unless individuals and businesses are paying for their membership, they are unlikely to take the association seriously. If businesses are actually getting information, technical assistance, and access to markets, it is entirely reasonable to pay for those services. At the outset, however, it is recommended that dues be affordable, particularly for smaller businesses: $25 to $50. If the association is successful in growing in the second or third year, a raise in dues would be appropriate, tying the figure to a business's annual revenue.

   Dues provide small amounts of money that can supplement larger public or private sources of funds. Additionally, money from dues is usually very flexible. Funds generated in this way can cover incidental printing or mailing costs, as well as honoraria for workshop consultants, for example.

2. Workshop fees. Although fees will not contribute significantly to the operation of the association, they will cover the costs of conducting workshops. At a minimum, workshops should be self-supporting and should not be a financial drain on the association.

3. Trade shows. Associations that are two to three years old may be in a position to hold their own Trade Show. If important buyers, brokers, and retail chains are in attendance, booth space and advertising can be sold at a premium.

4. Other fees. Listing or advertising fees can be charged for each business that chooses to be listed in the products directory.

Externally Generated Funds

1. Private foundations. Several foundations contribute to food and agriculture-related projects, among them the Ford, Rockefeller, and Kellogg Foundations. Regional foundations also are a source of funds.

   Foundation funds can be substantial when they come in the form of grants and will often be available over the course of several years. Linking the food industry and the association with regional economic development and diversification presents a strong case for any proposal. The "liabilities" of foundation funds are (a) grants may not always fit the needs of an association; (b) the grant process itself can take one to two years; and (c) foundation priorities can shift dramatically from year to year.

2. Local banks. The more progressive banks in a region, particularly those committed to lending for processors and growers, are potential sources of funds. However, since banks operate like other businesses in their need to maintain profit margins, any contributions would be small.

3. State funds. States committed to economic diversification and to agriculture will recognize the importance of supporting a food association. The more progressive and forward-looking states will recognize the need to "seed" the association, that is, get it off the ground. States realize that the industry provides a tax base, creates employment, and adds value to the state's economy. Supporting the association in this context is an investment in the state's economic well-being.

   State departments of industrial development, economic development, food and agriculture, or some combination of these offer the best chances for operational and administrative financing. Texas, Iowa, Vermont, California, Connecticut, and Massachusetts are examples of states that, through various means, help strengthen the market for their agricultural products.

4. In-kind. There are numerous sources of nonfinancial support and assistance from key agencies and organizations. The extension service, small business development centers, state departments of agriculture, state business development offices, and some university and community college departments all provide free or low-cost services. Most of the organizations/entities are only too happy to offer help, particularly when the potential client, in this case the food industry, is organized through an association. The association also makes it easier for public sector resources to locate client businesses.

5. Federal sources. The U.S. Department of Agriculture's FSMIP grants (Federal/State Marketing Improvement Program) are a good source of small amounts of money. Typically, the proposals are structured through state departments of agriculture. Funds can be used to promote and market the association. The U.S. Economic

Development Administration (EDA) and Small Business Administration (SBA) are also potential sources of funds. EDA offers research and technical assistance funds primarily through regional offices in Atlanta, Georgia; Austin, Texas; Chicago, Illinois; Denver, Colorado; Philadelphia, Pennsylvania; and Seattle, Washington. Typically, the proposals are part of a region's economic development plan—for example, a market study for an agricultural park. SBA's basic assistance programs are financial, business development, procurement, minority, innovation and research, and advocacy. Program participation probably would be by member businesses, not the food industry association.

A manual that describes federal and state resources for rural economic development is *Working Together*, published by the SBA and the Southwestern Bell Foundation in July 1988.

WHAT ABOUT AQUACULTURE: IS IT A GROWTH MARKET?

Aquaculture is the fastest growing sector of agriculture in the United States today. In the United States, aquaculture accounted for less than 1 percent of the edible fish consumed in 1970. In 1987 this had risen to 7 percent--an annualized growth rate of approximately 15 percent.

In the United States, the production of food fish and shellfish had an annualized growth rate from 1980 to 1988 of approximately 22 and 19 percent by weight and dollars, respectively. The growth between 1987 and 1988 has slowed but is still an impressive 13 percent (by weight) and 9 percent (by dollars). As to future growth, the International Aquaculture Foundation projects that U.S. production will be over 1.3 billion pounds in the year 2000--an annualized growth rate of over 7 percent. All of these data point to one major conclusion: aquaculture is a growth market.

WHAT ARE THE DRAWBACKS TO AQUACULTURE?

It is not easy money. The problems, concerns, and/or barriers to market entry include:

- Water quality and availability.
  - Oxygen availability (optimum oxygen consumption).
  - Off-flavor (created by algae).
  - Maintaining optimum water temperature.
  - Removal of ammonia and other metabolites.
- Financial backing.
- Inconsistent product inspection.
- Disease control and unavailability of therapeutics.
- Stocking rates (optimum density).
- Stock quality.
- Feed quality and price.
- Regulations.
- Bird predation.

Let's not forget possibly the most important factor towards market entry: the identification of viable (size, location, price, etc.) markets.

WHAT ARE THE NICHE MARKETS FOR SMALL AQUACULTURE ENTERPRISES?

Generally speaking, successful entry calls for identification of niche markets. These can include selling fish to:

Other fish farms.
State/local governments for recreational stocking.
Fee-fishing operations.
Processors (fresh whole, fresh fillet, fresh in other forms, frozen in various forms).
Wholesalers.
Restaurants.
Retailers.

One also has the option of starting at any point along this distribution chain or having a vertically integrated operation. For example, a resort owner or farmer might decide to purchase fish from a fish producer for the purpose of stocking and establishing a fee-fishing operation. Or a firm might be organized to hatch fingerlings, raise them, and sell them to local markets.

The bottom line is that it is possible to find a market niche. And there are other important demand characteristics of aquaculture markets that support the notion that it is a growth market. There are traditional geographic areas of fish consumption (e.g., the Southeast, along the coasts, etc.). Traditionally, older people consume more fish per capita, and this is a growing group in the United States. Health considerations have contributed to increased demand. The production techniques have been refined to eliminate the fishy taste and smell, and fish is price-competitive with other proteins.

IS AQUACULTURE DEVELOPMENT COMPATIBLE WITH AGRICULTURAL DEVELOPMENT?

The aquaculture market makes use of resources found in many rural areas, including water, acreage, and labor (it can be labor-intensive). In addition, grains are a significant part of fish feeds. In 1987, 1.2 to 1.3 billion pounds of grain products were consumed for aquaculture feed. This is forecasted to increase to 4.1 to 4.3 billion pounds by the year 2000. Also, it has been shown that fish farming can be compatible with other recreational (swimming) and agricultural (cattle, chicken, hydroponic) enterprises.

There are many aquaculture experts who believe that the future trend in the industry is toward indoor, intensive production methods that are vertically integrated. This would have the following benefits:

- Require less water.
- Require less land.
- Produce fewer potential pollutants.
- Allow location in major metropolitan markets.
- Produce a continuous supply of fish throughout the year (possible because of the modular process line which moves the fish through the line based on maturity).
- Have potentially greater control of product size and quality.

Of course, not all of these new technology and production processes are currently available; they are designed for large yearly volumes of fish production and they require significant capital expenditures.

Given the trend for the future in aquaculture discussed above, many large markets may not be available to rural aquaculture operations. But there are viable strategies for using aquaculture as a basis for rural economic development while making use of available resources and serving in the markets.

WHAT ARE THE STRATEGIES FOR AQUACULTURE DEVELOPMENT?

We suggest that in the long run, these viable alternative strategies include:

Strategy 1. A fee-fishing operation (it is estimated that there are over 4,000 in the United States) purchasing fish from a production operation.

Strategy 2. A small-scale fish production operation for serving a captive fee-fishing operation and local niche markets (e.g., restaurants, groceries).

Strategy 3. A small-scale fish production operation for serving a captive fee-fishing operation associated with a hydroponic, grain, or other compatible agricultural operation.

Strategy 4. Either Strategy 1 or 2 associated with a tourism/leisure/recreational operation (e.g., restaurant, lodging, other outdoor recreational activities).

These four basic strategies can supplement current operations or, in the case of Strategies 2, 3, and 4, become operations that are self-contained. These strategies take advantage of rural resources: land, water, grain. Also, they are aimed at niche markets that should remain in spite of future trends in the industry. More detailed information is presented in Document 551 in the next section.

PLEASE SUMMARIZE FOR ME—HOW DO WE WEAVE AGRICULTURAL DEVELOPMENT INTO OUR ECONOMIC DEVELOPMENT STRATEGY?

In conclusion, like any economic development activity, agricultural development is not always an easy step-by-step process. However, several rural areas have made agricultural development an integral part of their economic development efforts. Important points to remember are these:

1. Consider agriculture as a diverse sophisticated industry. It is not "just farming." It is an economic activity just as manufacturing or services are economic activities.
2. Organize for agriculturally based rural economic development on a countywide or regional basis. Resource-based rural economic development cannot be confined to communities.
3. Involve the individual farmer and the agribusiness community in the economic development effort.

4. Work with existing state agricultural specialists, and become aware of state programs.

5. Work to create a financial climate that is once again conducive to agricultural enterprises.

6. Be willing to explore new ideas and to spend considerable time analyzing opportunities. Agricultural development more often than not is about creating economic activity rather than capturing or attracting outside economic activity.

APPENDIX A

SAMPLES:

ANNUAL SURVEY

PRODUCTS DIRECTORY SURVEY

REFERRAL EVALUATION FORM

BUSINESS PROFILE FORM

(STATE) *Food Industry Association*
Membership Questionnaire

1. Name of business ______________________________

2. Address ______________________________ Telephone ______________

3. Owner, company president or contact person ______________________________

4. Type of food processing or production ______________________________

____

5. Brief history of your company (i.e. how long in business, locally owned, etc.) ______________

____

____

6. a. Please describe your business organization:
    - sole proprietor ______
    - partnership ______
    - cooperative—please give number of members ______
    - privately held corporation ______
    - publicly held corporation ______
    - other (please describe) ______________________________

   b. Who is involved in your long range business planning decisions:
    - primarily just the owner or president ______
    - marketing department ______
    - strategic planning group ______
    - management personnel ______
    - outside paid consultants ______
    - bank personnel ______
    - other (please specify) ______________________________

7. Number of employees:

   peak season ________ slow season ________

   average for year ________

8. Approximate gross sales for 1989 $______________

9. Product(s) manufactured (please list in order of dollar importance to your business).

   ______________ ______________ ______________

   ______________ ______________ ______________

10. How does the future look for your business?

    Excellent ______ Good ______ Poor ______

11. Please list major problems faced by your business. ______________________________

____

____

____

12. What has been your average rate of growth in gross sales for:

    1970-75 ______%
    1976-80 ______%
    1981-85 ______%
    1986–90 ______%

13. Is your product(s) currently sold:

    Under your label ______
    Private label ______
    No label ______

14. Procurement

- Do you buy agricultural produce for use in your food processing business? ______
- What percent of your agricultural input needs are met by W. Mass. farms? ______
- What other states do you buy from? Please indicate the percentage of your total needs that they supply. ______

______

______

- What conditions would be necessary for you to buy more of your total needs from W. Mass farmers? ______

______

______

- Which agricultural products are in short supply, or are not available, in W. Mass. that your business needs? ______

______

- Do you own and farm any land to supply your business with agricultural inputs?
  Y______ N______ If Y what percent of your total needs do you grow? ______
- Do you buy from wholesale terminal markets? Y______ N______
  If Y, what percent? ______
- Do you buy from farmer cooperatives? Y______ N______
  If Y, what percent? ______

15. Marketing

a. In what geographical areas do you market your product(s)? Check all that apply.

Western Mass. ______
New England ______
Northeast ______
Nationwide ______
Canada ______
Other Export Markets ______

b. Which distribution markets do you currently use? Please indicate percentage use.

Wholesale ______
Retail Dealers ______
Direct Sale to Consumers ______
Cooperatives ______
Restaurants ______
Institutions ______

Other (please specify) ______

16. What kind of storage, processing or packaging facilities and equipment are you currently using? Please explain.

Baking ______
Fermentation ______
Carbonation ______
Pressing ______
Pickling ______
Milk Processing ______
Cold Storage ______
Hydro-Cooling ______
Packaging ______
Sorting ______
Canning ______

Other Machines/Equipment ______

______

Other Processing ______

______

Other Storage ______

______

17. What types of assistance would be most useful to you?

Capital for

- purchase of equipment ____
- construction of new or additional facilities ____
- rehabilitation of existing facilities ____
- general business expansion ____
- increase cash flow ____
- marketing ____
- other (please explain) ____

____

____

____

Market Research

- evaluate profitability of existing markets ____
- evaluate consumer demand for current product(s) ____
- identify new markets for existing product(s) ____
- identify market demand for new product ____
- pricing strategies ____
- other (please explain) ____________________

____

Technical Assistance

a. Business

- developing a business plan ____
- packaging a loan ____
- forecasting/projecting sales and revenues ____
- locating sources of capital ____
- other (please explain) ____________________

____

b. Engineering/Science

- food microbiology ____
- food chemistry ____
- food colors and flavors ____
- stability and shelf life ____
- biotechnology ____
- package testing ____
- food extrusion processed ____
- nutritional testing ____
- machine design ____
- product testing/development ____
- computer applications ____
- cooling processes ____
- freeze drying ____
- quality control ____
- food manufacturing operations ____
- food packaging ____
- energy conservation ____
- food waste processing ____
- other ____________________
- ____________________
- ____________________
- ____________________
- ____________________

Please return to:

____(STATE)____ **Food Industry Association**

(ADDRESS)

Thank you.

(STATE) Food Industry Association Directory
For Food Producers and Related Businesses

1. Company Name ______________________________
2. Owner's Name ______________________________
3. Contact Person ______________________________
4. Address: Street ______________________________

City ______________________________
State and Zip ______________________________
Phone (   ) ______________________________

5. Please check all the categories that apply to your business:

____ Farmer
____ Specialty food grower
____ On farm processor
____ Food processor
____ Food wholesaler/distributor
____ Food service/restaurant
____ Food retailer
____ Food industry consultant
____ Food industry advocate
____ Input Supplier

Other ______________________________

6. Please list your products and services in ranked order, starting with your largest source of revenue (sales).

1 ____________________
2 ____________________
3 ____________________
4 ____________________
5 ____________________
6 ____________________
7 ____________________
8 ____________________

7. Please list the agricultural input products that you buy in ranked order, starting with your largest input in terms of dollar value.

____
____
____
____

8. Do you have any logos, art-work (**camera-ready**) that you would like to appear in the Directory?

____ Yes   if yes, please attach and return with survey.
____ No

Please write a statement that you would like to appear in the Directory that describes your company, its products and services.

____
____
____
____
____
____

CONFIDENTIAL

The data in this section will be used for describing our Association but will not be in the Directory nor released to anyone without protecting confidentiality.

Number of Employees _______ Low _______ High _______ Average for Year

Annual Sales for 1988: _______________ Approximate Total Assets: $ _______________

The following questions are for in-house information only.

9. Year your company was founded: ___________

Brief company history: ____

____

____

10. Do you market your products outside of the immediate area? _______ Yes _______ No

If yes, please check those market areas you ship to:

_______ New England _______ Southern States _______ Nationwide

_______ Northeast _______ Western States _______ Canada

11. Please give the percentage that you use these distribution markets:

_______ Direct sales to consumers on location _______ General retail/grocers

_______ Mail order _______ Food service/restaurants

_______ Wholesaler/broker _______ Institutions

_______ Specialty/independent retailer _______ Cooperatives

Other (please describe) ____

12. Which of the following activities would be most beneficial to your company? Please **rank** in order of importance.

_______ Association seal with logo to use on your products.

_______ Association trade show.

_______ Booth space at regional and state fairs.

_______ Booth space staffed by association at major national trade shows.

_______ Booth space with other association members, staffed by you, at major national trade shows.

_______ In-store promotions.

_______ Evening meeting with local buyers.

_______ Participation in taste of Springfield and other regional promotionalfestivals.

_______ Food Editors Tour of association members.

_______ Development of corporate brochure/catalog..

_______ Quarterly theme meetings on current topics.

_______ Other, please describe ____

____

13. Would you like to serve on one of the Associations subcommittees?

___ Yes ___ No

Please return the completed survey to:

(STATE) Food Industry Association Referral Evaluation

Thank you for contacting the (STATE) Food Industry Association. Please take a minute to complete this form after you have made a request and received assistance from the Association.

This information will help us evaluate the effectiveness of our referral process. Your cooperation is greatly appreciated.

Date ____________________

Name __________________________________

Business ______________________________

1. Assistance requested ____

____

____

2. Name of individual(s) or organization(s) you contacted or who contacted you ____

____

3. Assistance received ____

____

____

____

____

4. Efficiency of referral process ___excellent ___good ___fair ___poor

5. Satisfaction with information received ___excellent ___good ___fair ___poor

6. May we share this information with other food industry business people, consultants, etc., as an example of the type of assistance the Food Industry Association offers? ___yes ___no

Please return to:

BUSINESS PROFILE

DATE ____________________

OWNER/PRESIDENT/CONTACT PERSON ______________________________________

NAME OF BUSINESS ______________________________ PHONE ____________

ADDRESS ______________________________________ MEMBER? Y N

1. TYPE OF BUSINESS & PRODUCT(S) MANUFACTURED ____________

2. HOW LONG IN BUSINESS ______________________________

3. # EMPLOYEES PEAK SEASON ________ OFF PEAK ________

4. GROSS SALES '89 ________________

5. TYPES OF AG. PRODUCTS USED ______________________

6. ORIGIN OF AG. INPUT ______________________________

7. HOW PRODUCT(S) LABELED ____________________________

8. WHOLESALE MARKETS USED ____________________________

9. RETAIL MARKETS USED ______________________________

10. BROKER/DISTRIBUTOR USED __________________________

11. TRANSPORTATION USED______________________________

12. FREQUENCY OF RUNS ________________________________

13. MAJOR AREAS OF INTEREST IN ASSOCIATION SERVICES ____________

14. OTHER PROBLEMS/NEEDS ______________________________

15. FUTURE PLANS ____________________________________

REFERRAL MADE ______________________________________

INFORMATION SENT ____________________________________

COMMENTS:

APPENDIX B

FOOD TRADE PUBLICATIONS

There are a number of quality publications that may be of interest to food-related businesses and those starting a food industry association:

Baking Industry (monthly)
Circulation Department
301 East Erie Street
Chicago, IL 60611-9916

Dairy & Food Sanitation (monthly)
P.O. Box 701
Ames, IA 50010-0701

Fine Foods Magazine (monthly)
P.O. Box 190
South Weymouth, MA 02190

Food Plant Industry (bimonthly)
P.O. Box 9400
Minneapolis, MN 55440

Food Processing (monthly)
Putnam Publishing Company
301 East Erie Street
Chicago, IL 60611-9916

The Griffin Report of Food Marketing
(monthly)
P.O. Box 190
South Weymouth, MA 02190

National Food Review (quarterly)
USDA/ERS
P.O. Box 1608
Rockville, MD 20850

Packaging (14 issues/year)
44 Cook Street
Denver, CO 80206-5191

Prepared Foods (monthly)
AMF
P.O. Box 66196
O'Hare, IL 60666

Supermarket News (weekly)
P.O. Box 1400
Riverton, NJ 08077

Yankee Food Service (monthly)
P.O. Box 190
South Weymouth, MA 02190

V. Selected Technical Assistance Materials for Rural Economic Development Through Agriculture Resources

V. SELECTED TECHNICAL ASSISTANCE MATERIALS FOR RURAL ECONOMIC DEVELOPMENT THROUGH AGRICULTURE RESOURCES

The references that follow list approximately 50 publications with valuable technical assistance or conceptual information on pursuing rural economic development through wise use of agricultural resources.

AGRICULTURE RESOURCE TECHNICAL ASSISTANCE MATERIALS

Doc. No.	Title	Institution or Author
500	Farming Alternatives Project Materials	Cornell University
501	Farming Alternatives: A Guide to Evaluating the Feasibility of New Farm-Based Enterprises	Cornell University
502	Series of Technical Assistance Bulletins	Council of State Governments
503	North Country Region--Cash Crop Feasibility Study	The Adirondack North Country Association, New York
504	A Rural Perspective: Agricultural and Small Woodlot Alternatives	Virginia State University
505	AgMarket Search for Southeast Minnesota	The Minnesota Project
506	A Standardized Methodology for Evaluating Commodity Potential	University of Maine
507	Omega Concept	Chariton Valley RC&D, Iowa
508	Growing Our Own Jobs--A Small Town Guide to Creating Jobs Through Agricultural Diversification	National Association of Towns and Townships
509	Packet of Information on the Rural Development Center and Its Programs	Kirkwood Community College, Iowa
510	Paper, "Alternative Agriculture Programming Through the Development of a Support Organization"	Cornell University
511	Planning and Zoning for Farmland Protection: A Community-Based Approach	American Farmland Trust
512	Two Bulletins on Agriculture's Role in Economic Development	Texas Agricultural Extension Service
513	Set of Bulletins on Alternative Ag Enterprises	Iowa State University
514	The Director for Small-Scale Agriculture	U.S. Department of Agriculture
515	Set of Materials on Farmers Markets	California Department of Food and Agriculture
516	Booker T. Whatley's Handbook on How to Make $100,000 Farming 25 Acres	Regenerative Agriculture Association, Pennsylvania
517	Financial Assessment of Agricultural and Natural Resource Enterprises	Cornell University
518	Agricultural Development--Policy Guidelines and Resource Materials	Texas Department of Agriculture
519	Going to Market: The New Aggressiveness in State Domestic Agricultural Marketing	The Council of State Policy and Planning Agencies

Doc. No.	Title	Institution or Author
520	Series of Value-Added Studies	University of Wyoming
521	National Assessment of Extension Education Programs in Producer Marketing Alternatives	U.S. Department of Agriculture
522	Spotlighting Alternative Crops	Geode Specialty Growers Association Inc., Iowa
523	Planting Ideas, Cultivating Opportunity Harvesting Prosperity--A Guide for Rural Economic Development	Communicating for Agriculture Inc., Minnesota
524	Economic Development for Rural Revitalization--A Handbook, Cooperative Extension System, U.S. Department of Agriculture	North Central Regional Center for Rural Development, Iowa
525	A Feasibility Study for an Integrated Broiler Producing Industry in Southern Illinois	Southern Illinois University
526	Innovations--Sharing Approaches That Work	Colorado Department of Agriculture
527	Adapt 2--Ag Diversification Adds Profit Today, 100 Ideas for Farmers	*Successful Farming*, Iowa
528	Economic Feasibility Methods: New Agricultural and Rural Enterprises	South Dakota State University
529	Marketing--How to Survive as a Small Farmer	Rocky Mountain Institute, Colorado
530	Selected State Policy Publications	National Conference of State Legislatures
531	Two Publications on Sustainable Agriculture Systems	Wisconsin Rural Development Center Inc.
532	Set of Materials on AgriMissouri	Missouri Department of Agriculture
533	Cooperative Education: Resource Guide and Directory	American Institute of Cooperation
534	Best of Missouri Farms	University of Missouri-Columbia
535	Kansas Agriculture and Rural Communities: Changing and Adapting to Survive	Kansas State Board of Agriculture
536	Directory of Statewide Rural and Agricultural Leadership Programs	Northeast Regional Center for Rural Development, Pennsylvania
537	Reshaping the Bottom Line: On-Farm Strategies for a Sustainable Agriculture	Land Stewardship Project, Minnesota
538	Set of Feasibility Studies	North Dakota State University
539	Feasibility of a Total Resource Agricultural Processing Industrial Park	Midwest Research Institute, Missouri
540	Making Connections for Oregon Businesses	Oregon Marketplace
541	Materials on the Spokane Incubation Kitchen Center	Spokane Business Incubation Center, Washington
542	Market Analysis for an Agricultural Park in the Pioneer Valley	Market Street Research, Massachusetts
543	Brochure on the Food Industry Institute	Michigan State University
544	Materials on the Food Processing Center	University of Nebraska
545	Sectoral Strategies and the Northern Tier Economy: A Strategic Analysis	Mount Auburn Associates, Massachusetts

Doc. No.	Title	Institution or Author
546	Material on Regional Strategies for Resource-Based Rural Development	Oregon Economic Development Department
547	Renewing America	The Council of State Planning Agencies
548	Directory of West Virginia Producers Selling Agricultural Products in Direct Markets	West Virginia University
549	Series of Publications on Rural Economic Development	Midwest Research Institute, Missouri
550	Organizing a Food Industry Association	Midwest Research Institute, Missouri
551	A Generalized Guide to Small Aquaculture Enterprises	Midwest Research Institute, Missouri

Fifteen subject areas were identified to help readers; these are shown below.[1] The annotations were carefully written to indicate the content and specific utility of each publication.

Agricultural diversification

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Value-added agribusiness

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Marketing

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Business planning

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Community development

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[1] The 600 and 700 series publications are in Section VII.

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DOC. NO. 500

Farming Alternatives Project Materials
Green, Judy, coordinator
Ithaca, NY: Farming Alternative Program, Cornell University

ANNOTATION

The Farming Alternatives Project was initiated in September 1986 as a multidepartmental effort of Cornell University, sponsored by the New York Department of Agriculture and Markets. Its purpose is to help New York's farm families evaluate and develop new farm-based enterprises and marketing strategies. The project emphasizes business planning, marketing, and management issues involved in developing any new or nontraditional farm-based enterprise. Publications of interest include:

Resource Sheet 1--Innovative Farming Idea List (4 pp.).

Resource Sheet 3--Resources on Farming Alternatives for Use in Local and Regional Development Projects (3 pp.).

Resource Sheet 4--Regional and Local Agricultural Development Projects Incorporating Farming Alternatives (3 pp.).

Resource Sheet 6--Doing Your Own Market Research--Tips on Evaluating the Market for New Farm-Based Enterprises (6 pp.).

Results of a Survey of Cooperative Extension Field Staff Regarding Alternative Farming Enterprises (21 pp.).

Resources for Help in Developing New Farm-Based Enterprises: An Annotated Bibliography (8 pp.).

SOURCE

Farming Alternatives Project, Department of Agricultural Economics, 422 Warren Hall, Cornell University, Ithaca, NY 14853-7801. Phone 607-255-9832. Single copies of publications are available at no charge.

DOC. NO. 501

Farming Alternatives: A Guide to Evaluating the Feasibility of New Farm-Based Enterprises
Schuck, Nancy G.; Knoblauch, Wayne; Green, Judy; Saylor, Mary
Ithaca, NY: Northeast Regional Agricultural Engineering Service (NRAES), Cornell University, NRAES-32, October 1988, 88 pp.

ANNOTATION

This is an in-depth guide for farm and rural families who are interested in developing a new enterprise using farm or natural resources. Readers are taken through a step-by-step planning process, complete with work sheets and a case study, which covers goal setting, family and farm inventory, identifying alternatives, analyzing markets, analyzing profitability and cash flow, and final evaluation. This book would be especially useful for rural development specialists working with individuals or families or in a workshop series on agricultural diversification.

Also available through NRAES is a 14-minute video, *Farming Alternatives: Innovation on Northeast Farms*. The video quickly introduces the viewer to over 40 nontraditional farm and natural resource based enterprises with which Northeast farmers have experimented. Featured are five case studies of families who have developed successful alternative enterprises. The motivations of these families and the challenges and special problems of alternative enterprises are highlighted.

The video was designed to be used by extension agents, vocational agriculture teachers, and other farm family educators in an instructional setting, but may also be used to introduce the concept of alternative farm enterprise development to policymakers, planners, and others.

SOURCE NRAES Cooperative Extension, 152 Riley-Robb Hall, Ithaca, NY 14853. Phone 607-255-7654. The price for the book is $5.75, with discounts available on quantity orders. The price of the VHS videocassette is $20.00; discounts do not apply to the cassettes.

DOC. NO. 502 Series of Technical Assistance Bulletins

McLemore, Lisa Ann, editor

Lexington, KY: The Council of State Governments, Bulletin Nos. 1-6, C-98 through C-103, January 1988, 10 pp. each

ANNOTATION This series of six bulletins was designed to help states develop and implement institutional and technological innovations that can assist rural communities create and maintain jobs. Each of the six bulletins provides a practical how-to orientation and case studies of successful state programs. They are:

- Bulletin No. 1 (C-98): Business Retention and Expansion Programs: Focusing on Existing and Local Firms.
- Bulletin No. 2 (C-99): Agriculture Diversification Initiatives: State Government Roles in Rural Revitalization.
- Bulletin No. 3 (C-100): Rural Lands and Outdoor Recreation: The Appropriate State Role and Response.
- Bulletin No. 4 (C-101): Agriculture and Rural Development Commissions: Accepting the Challenge to Change.
- Bulletin No. 5 (C-102): The States' Role in Agricultural Marketing: Innovative Strategies.
- Bulletin No. 6 (C-103): Attracting Value-Added Businesses: Agricultural Enterprise Development.

References are included for each bulletin. The examples offered could be useful for rural areas to use to explore strategies with their state representatives.

SOURCE Order Department, The Council of State Governments, Iron Works Pike, P.O. Box 11910, Lexington, KY 40578. Phone 606-252-2291. Each bulletin is $6.00. The price for the series is $24.00.

DOC. NO. 503 *North Country Region—Cash Crop Feasibility Study* (Executive Summary Report)

Yellow Wood Associates Inc.

Lake Placid, NY: The Adirondack North Country Association, 1988, 8 pp.

ANNOTATION This study was undertaken to determine the feasibility for expanding small fruit and vegetable production in a six-county region in northern New York. The study also sought to determine the size of the intraregional wholesale market and constraints facing producers who wanted to enter wholesale markets. Summaries of the study's findings in the literature review, estimation of intraregional fresh produce consumption, survey of wholesale buyers, and lessons from buyer and producer surveys are presented.

The summary report gives a very useful overview of the kind of feasibility study that could be used in agricultural development strategies in many regions.

SOURCE Town of Champlain, Local Development Corporation, One Lincoln Boulevard, Rouses Point, NY 12979. Phone 518-297-7741. $2.00.

DOC. NO. 504 *A Rural Perspective: Agricultural and Small Woodlot Alternatives*

Hankins, Anthony G.

Petersburg, VA: Virginia State University, undated, 31 pp.

ANNOTATION This paper highlights ginseng and goldenseal cultivation; commercial wild harvest of medicinal herbs; and production of everlasting flowers, shiitake mushrooms, and organic food products. A bibliography and appendices listing seed and seedling suppliers are included.

SOURCE Anthony Hankins, Extension Specialist, Alternative Agriculture, Box 540, Virginia State University, Petersburg, VA 23803. Phone 804-524-5962. Free. Ask for available newsletters on alternative ag opportunities, which are prepared five to six times per year. Examples of topics in 1989 were topiary herb plants, shallots, dried flowers, and elephant garlic.

DOC. NO. 505 *AgMarket Search for Southeast Minnesota.* Vol. 1: Executive Summary Report

RPM Systems Inc.

Preston, MN: The Minnesota Project, Southeast Office, September 1986, 18 pp.

ANNOTATION This publication reports on a market research project in southeast Minnesota to identify potential new local markets for locally grown food commodities. Nearly 350 bulk food purchasers--including restaurants, grocery stores, schools, and hospitals--were surveyed about nearly 100 agricultural commodities. Over half the respondents said they would be willing to purchase directly from local farmers. Respondents said they would be willing to purchase an additional 23 percent of their $9 million total food purchase locally, representing a $2 million potential new market for area farmers. The study produced a listing of buyers, commodities, and potential markets. Some excellent recommendations for continuing the effort are included. The bulk food purchaser survey is also available.

SOURCE Loni Kemp, Project Director, Southeast Office, The Minnesota Project, P.O. Box 4, Preston, MN 55965. $5.00.

DOC. NO. 506 *A Standardized Methodology for Evaluating Commodity Potential*

Criner, George K.; Smith, Duane A.; Sage, Kathy J.; Reeb, Ralph II

Orono, ME: Maine Agricultural Experiment Station, University of Maine, Misc. Pub. 688, April 1986, 27 pp.

ANNOTATION This publication outlines a procedure that can be used to evaluate the potential for expanding or initiating a commodity industry. The procedure relies heavily on secondary data such as production and marketing costs in other regions that are producing the commodity competitively.

Two examples are given: a study of an existing industry (the Maine poultry industry) and a feasibility study of establishing a new industry (Maine broccoli). A very good discussion of the procedure--including a commodity overview, detailed evaluation of production and marketing methods and costs, and data analysis--is provided. Appendices include a sample budget format, cash flow statement, and data sources. The publication would be very useful for development groups working with landowners and utilizing Cooperative Extension Service assistance to evaluate ag diversification options.

SOURCE Maine Agricultural Experiment Station, University of Maine, Orono, ME 04473. Phone 207-581-3214. Free.

DOC. NO. 507 *Omega Concept*

McCarty, Chuck

Centerville, IA: Chariton Valley RC&D, 1987, 50 pp.

ANNOTATION This publication is a fresh and exciting proposal developed by a Resource Conservation and Development District in southern Iowa. The proposed project is designed to demonstrate alternatives to past land use practices on Conservation Reserve Program (CRP) land in preparation for the end of the program in nine years. These alternatives are to develop native hardwoods, wild game, and aquaculture in farm ponds so that land now in the CRP will not be returned to row crop cultivation in the future. The project represents a valuable model for other rural areas both in terms of the programs being considered and the process by which the program was developed to meet particular regional needs.

SOURCE Chariton Valley RC&D, P.O. Box 398, Centerville, IA 52544. Phone 515-437-4376. $5.00.

DOC. NO. 508 *Growing Our Own Jobs—A Small Town Guide to Creating Jobs Through Agricultural Diversification*

Stark, Nancy T.; Brown, Hamilton; Anderson-Lee, Mary

Washington, DC: National Association of Towns and Townships, 1988, 54 pp.

ANNOTATION This guidebook offers a wealth of ideas for rural community regeneration through agricultural diversification. Chapter 1 offers a step-by-step process for generating ideas and building community consensus about priority projects. Chapters 2 through 6 address five strategies with detailed examples of successes around the country. These strategies are diversifying agricultural production; adding value through local processing; direct marketing; recreation and tourism development; and developing the crafts industry. Each chapter has a list of recommended reading. Appendices include an agricultural diversification idea list, financing options, and an annotated bibliography.

SOURCE National Association of Towns and Townships, 1522 K Street, NW, Suite 730, Washington, DC 20005. Phone 202-737-5200. $5.00 prepaid. Discount prices for bulk orders are available.

DOC. NO. 509 Packet of information on the Rural Development Center and its programs

Rural Development Center

Cedar Rapids, IA: Kirkwood Community College, updated annually

ANNOTATION Kirkwood Community College's Rural Development Center has been in operation since 1984, providing rural Iowans a comprehensive educational program on diversified business enterprises. The center offers 20 specialized short (30-hour) intensive training programs. The programs focus on ways to supplement farm income. They also provide hands-on experiences in operations that are run by clients of the center who have developed profitable rural businesses.

The 1988-1989 four-day courses include an introduction to new rural enterprises; part-time and full-time employment options in rural Iowa; separate in-depth explorations of the production of herbs, flowers, farm sheep flocks, fish, rabbits, and game birds; and courses on dog enterprises, dog obedience training, rural catering, bed and breakfasts, farm vacations, recreational enterprises, and home-based businesses. A course for community college and technical school employees is also offered which teaches others how to determine needs for rural enterprise instruction in a college area as well as a course for rural community leaders. Tuition for the courses varies from $10 to $100.

The center has also produced three videos and two workbooks to be used either in conjunction with the courses or independently. An excellent overview to the center's approach is presented in *RDEC Outreach*, a video, which takes the viewer through a quick review of the center's philosophy and mini success stories on a wide variety of farm diversification enterprises. The diversified farm products include rabbits, pick-your-own fruits, game birds, fish, cut flowers, greenhouse plants, herbs, sheep, dogs, foxes, and crafts. Services include bed/breakfast operations, catering, and recreation. A useful accompaniment to this video is *Inventory Your Farm's Options: A Diversification Checklist*, which is a 26-page workbook. This publication discusses methods of diversification, resources for diversification, alternative profit centers, labor flow budgeting, value-added enterprises, financing, planning, home-based businesses, and low-input farming.

Low-input farming is discussed in detail in a second video, *Limited Input Farm Systems*. This 35-minute video presents a thorough picture of how farmers can increase profitability and take more control of their lives by changing some of their basic assumptions about their farm and operations, and reducing their dependence on chemicals. Viewers are encouraged to regard farms in terms of seven systems: land and crops, facilities and livestock, equipment, labor, personal and family goals, capital, and technology. Each system is discussed, and five steps are offered to begin a limited input program.

The third video, *Client Self-Assessment Guide*, accompanies a 23-page workbook that is designed to help farmers decide if they have the personal resources to start a small business. An entrepreneurship checklist and work sheets on personal commitment, family commitment, goals, and physical resources are provided.

SOURCE Rural Development Center, Kirkwood Community College, P.O. Box 2068, Building 31, Cedar Rapids, IA 52406. Phone 319-398-5699. The information packet describing the center and the courses is free. The two publications are free. The videos are available for rent; call the center to inquire about costs.

DOC. NO. 510 Paper, "Alternative Agriculture Programming Through the Development of a Support Organization"

Petzen, Joan S.

Ellicottville, NY: Cornell Cooperative Extension, Cattaraugus County, undated, 3 pp.

ANNOTATION This paper briefly summarizes the author's experience developing an educational program for alternative agricultural enterprises in Cattaraugus County, New York. Cooperative Extension and the local community college worked together to deliver a nine-week workshop series at three locations. The workshops evolved into a new organization, REAP, formed to promote alternative agricultural enterprises in the region.

SOURCE Joan S. Petzen, Cooperative Extension Agent--Farm Management, Cornell Cooperative Extension-Cattaraugus County, Parkside Drive, P.O. Box 870, Ellicottville, NY 14731. Phone 716-699-2377. Free.

DOC. NO. 511 *Planning and Zoning for Farmland Protection: A Community-Based Approach*

American Farmland Trust

Washington, DC: American Farmland Trust, 1987, 58 pp.

ANNOTATION This guidebook is designed to help communities protect prime high-quality farmland, open space, and agricultural values in suburban and rural areas through a variety of specialized zoning techniques. A farmland protection program could be a critical component of a rural area's strategy for adding value to or diversifying its agricultural industry. For tourism-related strategies such as farm tours, it would be a very important long-range planning goal.

SOURCE American Farmland Trust, 1920 N Street, NW, Suite 400, Washington, DC 20036. Phone 202-659-5170. $5.00.

DOC. NO. 512 Two bulletins on agriculture's role in economic development

Taylor, Gregory S.

College Station, TX: Texas Agricultural Extension Service, 1987, 2 pp. each

ANNOTATION These two bulletins discuss community economic development that is focused on agriculture. The factors that influence agriculture's role in local economic development are briefly presented in *Understanding Your Local Economy: Focus on Agriculture* (Bulletin L-2245). Value-added and vertical integration principles are discussed in *Developing Your Local Economy: Focus on Agriculture* (Bulletin L-2246).

Because they are brief, these two bulletins would be especially useful for circulating to local development practitioners who have little previous experience with agricultural applications of community economic development.

SOURCE Distribution and Supply Center, Texas Agricultural Extension Service, Texas A&M University, Annex Research, Systems Building, Room 104, College Station, TX 77843. Request Bulletins L-2245 and L-2246. No phone orders. First copy is free; additional copies are $0.35 each.

DOC. NO. 513 Set of bulletins on alternative ag enterprises

Ames, IA: Iowa State University Extension, Bulletins PM-1295a-l, 1988, 2 pp. each

ANNOTATION The Iowa Cooperative Extension Service has prepared a set of 12 bulletins on alternative ag enterprises such as herbaceous perennials, strawberries, sod production, maple syrup, Christmas trees, fuelwood, raspberries, muskmelon, broccoli and cauliflower, sweet corn, and snap beans. Each bulletin briefly discusses potential returns, risks, investment, management, marketing, sample costs, and sources of additional information. Organizations and individuals working with landowners to assist in value-added and diversification enterprises would benefit from the series.

SOURCE Extension Publications Distribution, Iowa Cooperative Extension Service, Iowa State University of Science and Technology, Ames, IA 50011. Phone 515-294-5247. Ask for Bulletins PM-1295a through l. First copy is free. There are four more bulletins near completion on bees, cooperatives, hay, and rabbits.

DOC. NO. 514 *The Directory for Small-Scale Agriculture*
Small-Scale Agriculture Today (Newsletter)
Information sheets on small-scale agriculture alternatives
The Perfect Tomato video

Washington, DC: U.S. Department of Agriculture, Office for Small-Scale Agriculture, 1989, 109 pp. (*The Directory*)

ANNOTATION The Office for Small-Scale Agriculture has produced several materials about small-scale farming that are very valuable for agricultural entrepreneurs. *The Directory* is a listing of nearly 500 individuals who are doing work related to the topic of small-scale agriculture. Each individual's specialty or special projects and responsibilities are presented. *The Directory* is intended to help network small-scale agricultural researchers and educators and enable greater access to small-scale agriculture programs and projects. Most of the entries are research and extension personnel or service and assistance personnel from state and federal government.

Small-Scale Agriculture Today is a four-page quarterly newsletter that includes a viewpoint, brief notes on technological innovations pertinent to small-scale agriculture, and a calendar of events.

The information sheets are two-page summaries of alternative crops, including dessert vines, exotic fruits, exotic livestock, specialty vegetables, herbs, mushrooms, sheep, wildflowers, foliage plants, and goats. Each write-up includes things to consider and sources of information.

Publications on woodlots, small-scale aquaculture, and specialty and dried flowers are planned for early 1990. *The Perfect Tomato, The Ideal Blackberry, Making Money in Small-Scale Agriculture* is a nine-minute video with many brief clips on alternative products from small-scale agriculture.

SOURCE

For *The Directory*, order from Superintendent of Documents, U.S. Government Printing Office, North Capitol Street NW, Washington, DC 20402. Stock No. 001-000-04539-3. Phone 202-783-3238. $5.50. To request the newsletter or fact sheets, contact the Office for Small-Scale Agriculture, Cooperative State Research Service, Suite 342-D, Aerospace Building, Washington, DC 20251-2200. Phone 202-447-3640. No charge. To purchase the video, send $10.00 to USDA Office of Information, Room 4404, South Building, Washington, DC 20250-1300.

DOC. NO. 515

Set of materials on farmers markets

Sacramento, CA: California Department of Food and Agriculture, Direct Marketing Program

ANNOTATION

The Direct Marketing Program in the state of California encourages the traditional link between farmers and consumers by providing assistance to growers and communities in developing certified farmers' markets (CFMs). A CFM is a location where farmers sell fresh fruits, nuts, and vegetables directly to the public. Farmers who participate in CFMs are inspected by county agricultural commissioners to ensure that they are growing the products they sell.

Organizing a Certified Farmers' Market (1988, 88 pp.) suggests general steps to organizing a CFM (e.g., make local inquiries, farmer recruitment) and discusses each step. Recommended agendas for the first general meeting (consumers and farmers), second general meeting (committee reports), growers' meetings, and other general meetings are given. Other information discusses obtaining permits, cooperative trucking, liability insurance, health standards, food stamps, "sealed" scales, and related considerations. Appendices (20 in all) cover farmers' market rules; stall fee options; sample budgets; fund-raising ideas; sample flyer, news release, bylaws, and certificates; and regulations for the state of California.

Managing a Certified Farmers' Market (1988, 43 pp.) is a guide to assist new managers with some of the challenges involved in running a CFM. Topics discussed include sponsorship, board responsibilities, goal setting, selecting a manager, budgeting, safety, working with farmers, and promoting the CFM. Appendices (11 in all) include sample budget work sheet, load list, governing rules, producer agreement, violation and accident notices, press release, shopper survey, and market diagram.

California's Direct Marketing Program also publishes two directories, one for southern and the other for northern California. Each directory lists farm trails, CFMs (by county, with location, dates, and times of operation), direct marketing farmers (by county, with season and hours, crops and features, and notes), and a table of selected nutrient values of common fruits and vegetables. It is an excellent resource for all states to consider.

SOURCE CDFA Direct Marketing Program, 1220 N Street, Room A-287, P.O. Box 942871, Sacramento, CA 94271-0001. Phone 916-445-5294. All publications are free.

DOC. NO. 516 *Booker T. Whatley's Handbook on How to Make $100,000 Farming 25 Acres*

Whatley, Booker T.; the editors of *The New Farm*

Emmaus, PA: Regenerative Agriculture Association, 1987, 180 pp.

ANNOTATION This lively book recommends high-value, pick-your-own crops and livestock enterprises for small farmers who can establish a "clientele membership club" and who have the right personality, management skills, and location. The publication discusses the theory, getting started, establishing the membership club, equipment, high-value crops and enterprises, value-added enterprises, marketing, and organic farming practices. Appendices list sources for fencing supplies, information for rotational grazing, seeds, vegetable specialties, herbs, berry and small fruit specialties, fruit and nut tree nurseries, and selected contact persons. There are some thought-provoking discussions that could be used to encourage agricultural entrepreneur groups to reexamine their farming systems and the future of small farms.

SOURCE The Regenerative Agriculture Association, 222 Main Street, Emmaus, PA 18098. Phone 215-967-5171, Ext. 1946. $17.95 (paperback).

DOC. NO. 517 *Financial Assessment of Agricultural and Natural Resource Enterprises: A Guide and Spreadsheet Template*

Ide, Peter

Ithaca, NY: Department of Natural Resources, Cornell University Agricultural Experiment Station, Natural Resources Research and Extension Series No. 27, 1987, 29 pp.

ANNOTATION This guide is intended to assist entrepreneurs, researchers, extension agents, and rural development specialists in identifying and evaluating the financial feasibility of new agricultural and natural resource enterprises. Procedures are outlined for conducting feasibility studies of new enterprises using an electronic spreadsheet, which accompanies the report. Use of the spreadsheet requires an IBM-compatible personal computer and Lotus 1-2-3.

The guide gives only limited assistance in identifying the enterprise concept, but six suggestions are offered for rural development through natural resource opportunities.

SOURCE Ms. Deborah Grover, Department of Natural Resources, Fernow Hall, Cornell University Distribution Center, 7 Research Park, Ithaca, NY 14850. Phone 607-255-2080. $4.25.

DOC. NO. 518 Agricultural development--policy guidelines and resource materials

Texas Department of Agriculture

Austin, TX: Agricultural Development Program, Texas Department of Agriculture, 1988, 81 pp. (*Blueprint*) and 300 pp. (*Handbook*)

ANNOTATION *Economic Growth Through Agricultural Development—A Blueprint for Action* is a very good example of a plan to reposition agriculture as the leading economic sector in a state hit hard by the farm crisis. The strategy focuses on revitalizing the state's farms and ranches by bringing new ideas and technologies to farmers and ranchers, stimulating food and fiber processing within the state, expanding alternative crops, and developing new markets. This report examines the potential economic benefits of the food processing industry, the fiber-processing industry, and 16 alternative crops. It also outlines a program of state-supported finance, training, consultation, and marketing for new agricultural enterprises.

The *Resource Handbook for Rural Development* was prepared after the *Blueprint* report and is designed to identify the financial and technical assistance resources available to communities and individuals in Texas. Included are descriptions of 38 categories of programs or services and a county listing of the contacts for each. Examples include programs and offices for the Agricultural Stabilization and Conservation Service, Texas Department of Agriculture, Texas Department of Commerce, Texas Agricultural Extension Service, district Banks for Cooperatives, business incubators, certified development companies, chambers of commerce, the Cooperative Assistance Fund, Councils of Government, U.S. Economic Development Administration, electric cooperatives, utility companies, small business investment companies, small business development centers, venture capital associations, and many others.

Together, *Blueprint* and *Resource Handbook* represent a very useful model for other states to consider in developing rural revitalization plans and technical assistance resources.

SOURCE Agricultural Development Program, Marketing Division, Texas Department of Agriculture, P.O. Box 12847, Austin, TX 78711. Phone 512-463-7624. An updated version of *Blueprint* is expected in mid 1990. Free.

DOC. NO. 519 *Going to Market: The New Aggressiveness in State Domestic Agricultural Marketing*

Nothdurft, William E.

Washington, DC: The Council of State Policy and Planning Agencies, October 1986, 34 pp.

ANNOTATION This paper explores the emergence of aggressive and creative domestic marketing programs in some state departments of agriculture. Programs are described based on interviews with agriculture commissioners and marketing directors in the Midwest and in states outside that region which had notable domestic marketing programs. Chapter 1 explores how the state's role has changed. Chapter 2 examines three categories of programs--direct marketing, agricultural promotion, and market development programs.

Numerous examples are given of ways in which states have provided technical and financial assistance, helped with publicity and public education, encouraged diversification, improved buyer-seller linkages, developed value-added capacity, and analyzed market trends. Many of the innovations discussed would be important considerations for a regional economic development effort that embraced agricultural development within its strategy.

SOURCE The Council of State Planning Agencies, 400 North Capitol Street, Suite 291, Washington, DC 20001. Phone 202-624-5386. $6.00, prepaid.

DOC. NO. 520 Series of value-added studies

Laramie, WY: University of Wyoming Cooperative Extension Service, 1988, B-898.10 through B-898.15

ANNOTATION The University of Wyoming Cooperative Extension Service completed a series of 19 publications on value-added agricultural opportunities. Nine of the publications assess the potential of specific Wyoming crops: alfalfa, barley, beef, corn, dry beans, oats, sheep, sugar beets, and wheat. The other 10 publications include the following (publication numbers and prices are noted):

No.	Title
B-898	Executive Summary for the Value-Added Study ($2.00)
B-898.10	Value-Added Agribusiness in Wyoming--Characteristics, Problems, and Barriers ($11.00)
B-898.11	Former Value-Added Agribusinesses in Wyoming--Characteristics and Reasons for Suspending Operations ($3.00)
B-898.12	Sources of Capital for Wyoming's Value-Added Agribusinesses ($3.00)
B-898.13	Estimated Costs of Feasibility Studies, Processing Plants, and/or Equipment for Wyoming's Major Agricultural Commodities ($1.00)
B-898.14	Framework for Evaluating Proposed Value-Added Agribusiness Projects ($5.00)
B-898.15	Summary of Wyoming Value-Added Focus Group Meetings ($4.00)
B-909.16	Bibliography on Value-Added Agriculture ($3.00)
B-898.17	Resource Directory for Value-Added Agriculture ($2.00)
B-898.18	Opportunities for Economic Development and Potential for Value Added in Wyoming Production Agriculture ($2.00)

The publications are valuable both for the information they contain on the specific crops of interest to Wyoming and for the process used in assessing value-added opportunities. It is a process many other states would do well to consider.

SOURCE University of Wyoming Cooperative Extension Service, Bulletin Room, P.O. Box 3313, Laramie, WY 82071. Phone 307-766-3268. Request publications by number (see above for numbers and prices).

DOC. NO. 521 *National Assessment of Extension Education Programs in Producer Marketing Alternatives* (survey form only)

Smith, Roland D.

No publisher listed

ANNOTATION This 29-question survey is included here because it could be a useful starting point for a local development group interested in directing a retention and expansion program that focused on area farmers, ranchers, and other producers. The form was part of a national survey used by the Extension Service to improve marketing programs. The questions are designed to gather general information about area producers, the commodities (crop, livestock, or forest product) that bring in the greatest cash receipts, current marketing practices, and marketing problems.

SOURCE Economics and Management Sciences Department, Midwest Research Institute, 425 Volker Boulevard, Kansas City, MO 64110. $3.00.

DOC. NO. 522 *Spotlighting Alternative Crops*

Steel, Sam

Burlington, IA: Geode Specialty Growers Association Inc., 1985 (Reprinted 1987), 106 pp.

ANNOTATION This is a manual on alternative fruit and vegetable, forage, forest, grain, seed, and specialty crops appropriate for midwestern farmers. There are 3 fruit, 11 vegetable, 6 forage, 3 forest, 6 grain, 2 seed, and 2 specialty crops that are profiled. Each profile is about two pages in length, with brief information on climate, soils, varieties, a production budget, pest control, harvest/handling, grading/sorting, packaging/storing, and marketing. There are appendices with a variety of further information, such as sources of herb seeds and plants and references for further reading.

The Geode Specialty Growers Association (GSGA) was formed by the Geode Wonderland Resource Conservation and Development District (RC&D). It is an excellent example of a local effort promoting rural economic development through farming diversification. The GSGA also produces a 10-page newsletter, *Agri Life Line*, which features useful information on marketing alternative crops, Midwest conferences, and additional resources (especially on shiitake mushrooms).

SOURCE Geode Specialty Growers Association, 3002A Winegard Drive, Burlington, IA 52601. Phone 319-753-6143. $5.00 postpaid. The *Agri Life Line* subscription is $10.00 per year (4 issues).

DOC. NO. 523 *Planting Ideas, Cultivating Opportunity, Harvesting Prosperity—A Guide for Rural Economic Development*

Barney, Jerry, managing editor

Fergus Falls, MN: Communicating for Agriculture Inc., 1988, 52 pp.

ANNOTATION This booklet was compiled to be a blueprint for communities to begin economic development. Headings of the one- to three-page chapters include "A Change in Thinking"; "A Multiplying Dollar"; "A Guide for Community Action"; "Community Goals"; and "What Is a Community?"

Much of the first half of the booklet presents stories of towns' and individuals' efforts at diversifying their rural economies and incomes. The second half is a listing, by state, of rural development assistance programs, with contacts. There are also a summary of selected private and public/private organizations offering technical expertise and a brief description of federal programs related to rural economic development.

SOURCE Communicating for Agriculture Inc., National Headquarters, P.O. Box 677, Fergus Falls, MN 56537. Phone 1-800-432-FARM or 218-739-3241. $8.95.

DOC. NO. 524 *Economic Development for Rural Revitalization—A Handbook*

Cooperative Extension System, U.S. Department of Agriculture

Ames, IA: North Central Regional Center for Rural Development, April 1987, 35 pp.

ANNOTATION This publication is part of a training program developed by the Extension Service with support from several organizations. Part I discusses critical forces affecting the rural economy. Part II is an overview of community economic development forces, theories, and policy options. Part II also presents case studies that illustrate how Extension has assisted communities in their economic development activities. A few natural resource strategies--e.g., tourism, agricultural diversification, and ranch management--are presented. A resources section lists federal agencies, professional associations, nonprofit organizations, and interest groups that are active in community economic development. There is also a video that was prepared to accompany the handbook. The video is also entitled *Economic Development for Rural Revitalization—Parts 1, 2, and 3* by Beth Honadle, USDA. The videotape has three segments: critical forces facing the rural economy (16 minutes), fundamentals of economic development (37 minutes), and four case studies illustrating approaches to economic development (48 minutes). One of the case studies is on agribusiness development. An optional 12-page conference facilitator's manual is also available upon request.

SOURCE Media Resources Center, 121 Pearson Hall, Iowa State University, Ames, IA 50011. Phone 515-294-1540. The tape is $35 in VHS format, and one copy of the handbook is provided. Additional handbooks are $1.00 each. The facilitator's manual is $1.00.

DOC. NO. 525 *A Feasibility Study for an Integrated Broiler Producing Industry in Southern Illinois*

Wagner, Michael J.; Beck, Roger J.; Eberle, Phillip R.; Goodman, Bill

Carbondale, IL: College of Agriculture, Southern Illinois University at Carbondale, 1989, 96 pp.

SUBJECTS Feasibility analysis, agricultural diversification

ANNOTATION This study examines the potential for a successful integrated broiler-producing complex in a 34-county area of southern Illinois. It compares advantages and disadvantages of the area to those of northwest Arkansas, where broiler and turkey production accounts for 44 percent of the state's farm cash receipts.

Chapters address locational requirements, each aspect of cost comparison (e.g., grow-out operations, labor, taxes, utilities, feed, shipping), and availability of each input (e.g., labor water, etc.). The most logical counties in which to locate the industry were also identified. The study is a useful model for use in similar agribusiness analyses.

SOURCE Department of Agribusiness Economics, College of Agriculture, Southern Illinois University at Carbondale, Carbondale, IL 62901-4410. Phone 618-453-2421. $8.00.

DOC. NO. 526 *Innovations—Sharing Approaches That Work*

Carlson, David, project coordinator

Denver, CO: Colorado Department of Agriculture, 1986, 16 pp.

ANNOTATION Project ARC (Agricultural Resources in Colorado) was a program of the Colorado Department of Agriculture that resulted in a series of resource publications for farmers and ranchers in Colorado. The publication *Innovations* was in newspaper format and presented a sampling of innovative ideas for adding value, tapping underutilized resources, and combining farmer and community resources, wildlife and recreation enterprises, and new crops. A Farm Diversification Checklist is also included. While designed for Colorado, it is a very good model for other states and regions to consider.

SOURCE Colorado Department of Agriculture, 1525 Sherman Street, 4th Floor, Denver, CO 80203. Phone 303-866-3511. Single copies are free.

DOC. NO. 527 *Adapt 2—Ag Diversification Adds Profit Today, 100 Ideas for Farmers*

Hoffman, Steven M.

Des Moines, IA: *Successful Farming*, 1988, 189 pp.

ANNOTATION This publication is the Proceedings of the Adapt 2 conference held December 3 and 4, 1987, in Kansas City. The conference was sponsored by *Successful Farming* magazine. Topics include new fruit, vegetable, and livestock enterprises; tree products; specialty crops; aquaculture; cottage industries; and marketing. Most of the articles are brief (one to two pages). Many include sample budgets. Contacts for all of the articles are given, and most contributors are farmers.

SOURCE For *Adapt 2* contact *Successful Farming*, 1716 Locust Street, Des Moines, IA 50336. Phone 515-284-2853. $12.95. There was an earlier *Adapt 1* conference (December 2 and 3, 1986) in Des Moines, Iowa, that generated a 168-page report with 79 diversified enterprises described. Copies of *Adapt 1* are no longer available from *Successful Farming*, but copies of the library copy can be obtained for $35.00 from The Economics Reference Center, Midwest Research Institute, 425 Volker Boulevard, Kansas City, MO 64110. Phone 816-753-7600.

DOC. NO. 528 *Economic Feasibility Methods: New Agricultural and Rural Enterprises*

Dobbs, Thomas L.

Brookings, SD: Agricultural Experiment Station, South Dakota State University, B703, 1988, 11 pp.

ANNOTATION This bulletin outlines and describes methods of economic feasibility analysis for a new business enterprise. Sections cover the following: estimating costs, examining markets, pricing the product, figuring profits and break-even points, and putting together a business plan. The material is written in a straightforward, clear manner; the publication could be used in some cases by groups and individuals to conduct their own feasibility analyses. Where professional assistance is needed, the bulletin would be useful in clarifying what needs to be included. Appendices give examples of calculating fixed and variable costs (for a fuel alcohol plant), discounting to present value (for a water project) and sample profit and loss statement, cash flow format, and balance sheet.

SOURCE ABS Bulletin Room, Box 2212A, Lincoln Music Hall, South Dakota State University, Brookings, SD 57007. Phone 605-688-5628.. Ask for Bulletin 703. No charge.

DOC. NO. 529 *Marketing—How to Survive as a Small Farmer*

Maggos, Laura

Snowmass, CO: Rocky Mountain Institute, 1987, 42 pp.

ANNOTATION This very readable paper was prepared to help small farmers identify, meet, and/or create demand for agricultural products or services. Part I discusses the marketing concept and explains why farmers have not been more active in the past. Part II addresses direct marketing, market development, and state government programs. Part III presents a case study of one small farmer. Part IV describes the broader economic benefits of an aggressive approach to marketing. Steps to producing and selling more crops locally and to finding new markets are suggested. Appendices provide Cooperative Extension Service contacts and other sources of information on marketing and sustainable agriculture.

SOURCE Rocky Mountain Institute, 1739 Snowmass Creek Road, Snowmass, CO 81654-9199. Phone 303-927-3851. $10.00.

DOC. NO. 530 Selected state policy publications

Denver, CO: National Conference of State Legislatures

ANNOTATION *State Policy Issues in Sustainable Agriculture* (1989, 60 pp.), *Agriculture, Economics, and Environmental Protection* (1987, 64 pp.), and *The State of Agriculture: Some Observations* (1986, 56 pp.) are three publications (by Gordon Meeks Jr.) that provide excellent overview information about sustainable agriculture as a state policy option. *State Policy Issues in Sustainable Agriculture* uses Iowa as a focal point in examining the historical context and issues related to sustainable agriculture. An increasing number of conventional farm operators are turning to sustainable agriculture for reasons of economic survival and their own health.

The barriers faced are the same that have obstructed sustainable agriculture over the past 30 years: limited available information and federal farm support programs. *Agriculture, Economics, and Environmental Protection* includes succinct overview chapters on biotechnology, innovative agriculture, and reintegrating farm policies. *The State of Agriculture: Some Observations* includes interesting discussions and examples of opportunities (entrepreneurial farming, development of alternative crops, state market development programs, and new policy agendas).

Selected State Rural Development Initiatives (by Sharon Lawrence, 1987, 28 pp.) provides one- to eight-page descriptions of rural development legislation in Arizona, Florida, Georgia, Minnesota, Montana, New York, Pennsylvania, Texas, Washington, and West Virginia as of mid-1987. Several of these state initiatives address agricultural development as a key element of rural revitalization. All four publications would be useful to rural regions working with their state legislators to prepare rural development responses.

SOURCE National Conference of State Legislatures, Book Order Department, 1050 17th Street, Suite 2100, Denver, CO 80265. Phone 303-623-7800, Ext. 176. Each of the first three publications is $8.00; *Initiatives* is $6.50.

DOC. NO. 531 Two publications on sustainable agriculture systems

Wisconsin Rural Development Center Inc. (*Proceedings*)
Lamm, Tom (*Guidelines*)

Black Earth, WI: Wisconsin Rural Development Center Inc., 1987, 20 pp. (*Proceedings*); 1989, 33 pp. (*Guidelines*)

ANNOTATION *Proceedings of a Statewide Conference on Sustainable Agriculture Farming Systems* (1987, 20 pp.) reports on a two-day conference held at the University of Wisconsin at Stevens Point. The conference was designed to facilitate dialogue on sustainable agriculture's potential to reduce farm financial problems and protect environmental quality. Abstracts of the remarks of 5 keynote speakers and 12 participants on farm panels are presented. Summaries on workshops related to needs for research and demonstration, education, curriculum, and state policy and programs are given. The material would be helpful for rural areas exploring sustainable agriculture as an agricultural development strategy.

Guidelines for Developing University Sustainable Agriculture Programs (by Tom Lamm, 1989, 33 pp.) was designed to advance the role of public universities in developing sustainable agriculture programs. Alternative program characteristics for basic and applied research, extension, and teaching are put forth.

SOURCE Wisconsin Rural Development Center Inc., P.O. Box 504, Black Earth, WI 53515. Phone 608-767-2539. *Proceedings* $3.00. *Guidelines* $5.00.

DOC. NO. 532 Set of materials on AgriMissouri
Missouri Department of Agriculture
Jefferson City, MO: Missouri Department of Agriculture, 1989

ANNOTATION The Missouri Department of Agriculture's Market Development Division includes a domestic marketing program, international marketing program, and agriculture development fund. Several publications have been prepared in the past year to increase public awareness of Missouri agriculture products, including:

- *Contacts for AgriMissouri* (listing of major agricultural commodity organizations in Missouri).
- *AgriMissouri Buyer's Guide* (a listing by commodity of food and selected nonfood products grown or processed in Missouri).
- *Consumer's Guide to Fruits and Vegetables* (a directory of farmer-to-consumer marketing operations).
- *Missouri Agricultural Export Directory* (listings of companies by product category plus listings of all state export services).
- *The AgriMissourian* (a newsletter).

These materials are a good example of state efforts to assist local rural development through agricultural development. Rural areas in other states should investigate their own state programs for comparable types of assistance.

SOURCE Missouri Department of Agriculture, Market Development Division, P.O. Box 630, Jefferson City, MO 65102. Phone 314-751-2613. Free.

DOC. NO. 533 *Cooperative Education: Resource Guide and Directory*
American Institute of Cooperation
Washington, DC: American Institute of Cooperation, 1989, 67 pp.

ANNOTATION The American Institute of Cooperatives (AIC) is the educational and research organization for cooperatives. This publication lists courses on cooperative business organization at colleges and universities around the country and training programs (including training for young farmers). About half the publication is a bibliography of printed and audiovisual materials, a directory of national cooperative organizations, state councils of cooperatives, and an index of state programs. The bibliography is especially useful because it lists 37 publications of the Agricultural Cooperative Service, USDA, as well as about 50 publications on cooperatives produced by various state cooperative councils.

SOURCE American Institute of Cooperation, 50 F Street NW, Suite 900, Washington, DC 20001. Phone 202-626-8740. Single copies are free of charge.

DOC. NO. 534 *Best of Missouri Farms*
Ritchie, Jim
Columbia, MO: University of Missouri-Columbia, 1989, 79 pp.

ANNOTATION An advisory committee worked with the AgriMissouri promotion program of the Missouri Department of Agriculture to produce this directory of Missouri grown and processed agricultural products. It is divided into 18 categories of products (e.g., honey, fruit, whole grain, pecans, hams, sauces, meats, candy) with one- to two-page layouts on each of about 40 businesses.

It is a good example of one type of marketing approach for assisting an area to diversify its agricultural products.

SOURCE University Extension Publications, 115 South Fifth, Columbia, MO 65211. Phone 314-882-7216. Request *Best of Missouri Farms* catalog, second edition, MP 649. $5.00 prepaid.

DOC. NO. 535 *Kansas Agriculture and Rural Communities: Changing and Adapting to Survive*

Commission on the Future of Kansas Agriculture

Topeka, KS: Kansas State Board of Agriculture, 1987, 24 pp.

ANNOTATION This publication was prepared to present recommendations to the state on possible solutions to the problems faced by Kansas agriculture and rural communities. However, many of the recommendations could apply to communities and counties looking for strategies to stimulate their economies through agricultural entrepreneurship. Issues discussed include the need to target marketing and business management, import substitution, ag diversification, home entrepreneurship, farmers' markets, value-added processing, and agricultural leadership.

SOURCE Kansas State Board of Agriculture, 109 Southwest Ninth Street, Topeka, KS 66612-1280. Phone 913-296-3558. Free.

DOC. NO. 536 *Directory of Statewide Rural and Agricultural Leadership Programs*

Heasley, Daryl K., editor

University Park, PA: Northeast Regional Center for Rural Development, 1987 (Revised), 62 pp.

ANNOTATION The W. K. Kellogg Foundation has supported efforts to develop leadership in rural areas through projects in 18 states. This directory describes 27 rural and agricultural leadership programs. Each profile has an overview and a summary of characteristics, including program goals and objectives, intended audience, recruitment method, selection of participants, participant responsibilities, budget, program features, and contacts. Rural areas or states considering agricultural leadership programs will find this publication very valuable.

SOURCE Northeast Regional Center for Rural Development, The Pennsylvania State University, 104 Weaver Building, University Park, PA 16802. Phone 814-863-4656. $25.00.

DOC. NO. 537 *Reshaping the Bottom Line: On-Farm Strategies for a Sustainable Agriculture*

Granatstein, David

Lewiston, MN: Land Stewardship Project, 1988, 63 pp.

ANNOTATION The Land Stewardship Project contends that the farming practices discussed in this publication, given adequate encouragement, organization, and support, can provide the critical foundation for rural community revitalization.

A collection of ideas are presented that make farming more economically and environmentally sustainable. Most of the examples identified come from southeastern Minnesota, but many of the concepts should be of interest to farmers throughout the Midwest. Chapters address sustainable agriculture, nitrogen, soil fertility, manure, weeds, insects, pastures, alternative crops, and innovative techniques. There is also a detailed reference section. The report is clearly written and strives to be reasonable and economically cautious in describing how farmers can make the transition to sustainable agriculture. Agricultural development strategies that seek to create a market with consumers concerned for the safety and quality of the food they eat would benefit from this publication.

SOURCE Land Stewardship Project, P.O. Box 815, Lewiston, MN 55952. Phone 507-523-3366. $9.00. Ask for the list of publications.

DOC. NO. 538 Set of feasibility studies

Fargo, ND: North Dakota Agricultural Experiment Station, North Dakota State University

ANNOTATION Researchers at North Dakota Agricultural Experiment Station have prepared a number of feasibility studies on agricultural processing industries. Examples include:

Report No.	Title
237	The Economic Feasibility of Expanded Potato Processing in North Dakota
229	Preliminary Economic Feasibility of High Fructose Corn Syrup Processing in the United States With Emphasis on North Dakota
226	The Economic Feasibility of Establishing Value-Added Dry Edible Bean Processing Plants in North Dakota
208	Feasibility of Establishing Small Livestock Slaughter Plants in North Dakota
204	An Economic Analysis of Intermediate-Sized Sunflower Processing Plants

The publications are valuable as models both for the format they follow and the process used to assess economic feasibility.

SOURCE Distribution Center, Morrill Hall, Box 5655, North Dakota State University, Fargo, ND 58105. Phone 701-237-7882. Free.

DOC. NO. 539 *Feasibility of a Total Resource Agricultural Processing Industrial Park*

Midwest Research Institute

Kansas City, MO: Midwest Research Institute, 1982, 85 pp. plus 242 pp. (appendices)

ANNOTATION This report presents findings of a study to examine the colocation feasibility of an agricultural processing industrial park in Minnesota. Colocation was defined as the joint use by firms of common facilities (transportation, administrative facilities, warehousing, etc.) as well as common power generation, waste treatment, and water supply facilities. The body of the report includes a detailed examination of the agricultural production and processing activities in the region and the state, and an analysis of the suitability of each of several communities in the region as a location for the park. The appendices (11) contain all the detailed data on production, processing, interviews, physical setting, financial data, energy, transportation, water, sewage, and labor. The report is an interesting model for ag park scenarios as part of a region's agricultural development strategy.

SOURCE Economics and Management Sciences Section, Midwest Research Institute, 425 Volker Boulevard, Kansas City, MO 64110. Phone 816-753-7600. $20.00 (report excluding appendices), $50.00 (report including appendices).

DOC. NO. 540 *Making Connections for Oregon Businesses*
Oregon Marketplace
Eugene, OR: Oregon Marketplace, 1989, 4 pp.

ANNOTATION This is a description folder on the Oregon Marketplace, formerly called Buy Oregon, begun in 1983 in a rural county that had suffered severe employment losses in lumber and wood products. The program connects businesses with local suppliers of the goods and services they purchase. In rural areas such an approach could provide a much-needed market information network.

SOURCE Oregon Marketplace, 618 Lincoln Street, Eugene, OR 97401. Phone 503-343-7712. Free. Ask for material on case narratives as well.

DOC. NO. 541 Materials on the Spokane Incubation Kitchen Center
Spokane, WA: Spokane Business Incubation Center, 1989

ANNOTATION The Kitchen Center is a licensed facility geared toward small, local food product businesses, providing the physical resources, management expertise, and technology needed to help these businesses survive. New and existing companies are able to take advantage of inexpensive space and professional assistance. Kitchen incubators could be important components of rural agricultural development strategies. Materials include a brochure and fact sheet.

SOURCE Spokane Business Incubation Center, South 3707 Godfrey Boulevard, Spokane, WA 99204. Phone 509-458-6340. Free.

DOC. NO. 542 *Market Analysis for an Agricultural Park in the Pioneer Valley*
Market Street Research; Hayes Associates
Northampton, MA: Market Street Research, 1988, 100 pp.

ANNOTATION This publication presents the results of a 1988 study of the market feasibility of an agricultural industrial park in the Pioneer Valley of Western Massachusetts.

The publication looks at the market feasibility of the proposed park for food processing firms and for growers. The proposed facility would include space, infrastructure, and services for small to medium-sized food processing firms and specialty food producers. The park would also provide area growers an opportunity to develop shared processing, warehousing, or distribution facilities. Ten one- to two-page descriptions of programs involving cooperative kitchens, food industry incubators, and food-testing ventures are presented. The publication offers a useful model for regions to use in conducting similar market studies, especially the appendices detailing the steps of the research, the 86-question grower's questionnaire, and the 167-question food processor's questionnaire.

SOURCE Market Street Research, 30 Market Street, P.O. Box 955, Northampton, MA 01060. Phone 413-584-0465. $7.50.

DOC. NO. 543 Brochure on the Food Industry Institute

Food Industry Institute, Michigan State University

ANNOTATION Michigan's agriculture is perhaps the most diverse in the nation, outside of California. Michigan State University's Food Industry Institute (FII) is a technical and management consulting resource to small food processing businesses. The brochure describes FII's programs to foster economic development within the food industry. Such programs, available at many state universities, could provide a critical link in an area's agricultural development strategy.

SOURCE Director, Food Industry Institute, 215 Food Science, East Lansing, MI 48824. Phone 517-355-8295. Free.

DOC. NO. 544 Materials on the Food Processing Center

Food Processing Center, Institute of Agriculture and Natural Resources, University of Nebraska

ANNOTATION Food processing is the leading manufacturing industry in Nebraska, with 240 companies. The Food Processing Center is considered a model by some states. A brochure lists capabilities in processing, technology transfer, and marketing. Copies of a November 1988 presentation, "Food Processing in the State of Nebraska," are also available. This paper details the origins of the Center and its role in encouraging the state's growth in food processing. It is a very useful model.

SOURCE Director, University of Nebraska-Lincoln, Food Processing Center, Institute of Agriculture and Natural Resources, Food Science and Technology Department, 134 H. C. Filley Hall, Lincoln, NE 68583-0919. Phone 402-472-2833. The brochure is free; copies of the paper are $1.00.

DOC. NO. 545

Sectoral Strategies and *The Northern Tier Economy: A Strategic Analysis*

Mount Auburn Associates

Somerville, MA: Mount Auburn Associates, 1986, 5 pp. (*Sectoral Strategies*); 208 pp. (*The Northern Tier Economy*)

ANNOTATION

Sectoral Strategies is an interesting paper that discusses the importance of sectorally targeted economic development strategies. It makes a good point for industry-specific economic development and for raising the visibility of those components of declining traditional industries that are achieving a competitive edge. One of two case studies examines the northern tier of Massachusetts, where natural resources were the focus of the region's economic development strategy.

The Northern Tier Economy: A Strategic Analysis was prepared to develop a set of recommendations for targeted economic development activities that could benefit a primarily rural portion of the state of Massachusetts hard hit by structural changes in its economy. The strategies placed primary emphasis on the food-related industries and wood products industries. Recommendations included promotion of closer, cooperative relationships within the industries, creation of a shared facility for small food industry companies, creation of a forest product industry data base, and closer links with new technologies (e.g., in food sciences and furniture design). The process used to arrive at the recommendations, including regional and subregional analyses, is clearly described. While the findings are specific to the study region, the process of sectoral analysis would be appropriate for any rural region.

SOURCE

Mount Auburn Associates, 408 Highland Avenue, Somerville, MA 02144. Phone 617-625-7770. $1.00 (*Sectoral Strategies*); $25.00 (*The Northern Economy*).

DOC. NO. 546

Materials on regional strategies for resource-based rural development

Salem, OR: Regional Strategies Program, Oregon Economic Development Department, 1989, brochure(s)

ANNOTATION

The Regional Strategies Program was established in 1987 to encourage all the counties to work as 15 regions to target an industry sector, regional plan, and related projects to help increase income and employment. Funds to support the regional strategies came initially from state lottery revenues. Several of the regional plans that resulted from this effort focus on natural resources. Regional strategies were developed for port improvement, tourism, and value-added processing for both agricultural and wood products.

The Umatilla County Board of Commissioners in Pendleton, Oregon, has prepared one of the 15 regional strategy plans under the Regional Strategies Program. The strategy for this two-county region is to diversify into high-value fruits, vegetables, and grains; improve infrastructure and support to value-added agricultural firms; and pursue aggressive marketing for value-added agriculture. A key component of the plan is a central processing facility. This and other plans could be useful models for rural regions or states pursuing rural development programs.

SOURCE

A brochure on the Regional Strategies program is available at no charge. A copy of the Regional Strategy Application form and Handbook, plus the Administrative Rules, can be made available at a small charge. Contact Lise Glancy, Manager, Regional Strategies Program, 595 Cottage Street, NE, Salem, OR 97310. Phone 503-373-1200. For *Morrow and Umatilla Counties Regional Strategy* (91 pp., 1989), contact the Umatilla County Board of Commissioners, Courthouse, 216 Southeast Fourth, Pendleton, OR 97801. Phone 503-276-7111. $10.00. Inquire as to updated planning documents.

DOC. NO. 547

Renewing America

Nothdurft, William E.

Washington, DC: The Council of State Planning Agencies, 1984, 198 pp.

SUBJECTS

Overview

ANNOTATION

In the absence of a philosophical overview of why and how rural regions should take a fresh look at managing and conserving their natural resource assets for long-term economic benefits, this book on state natural resource management for economic revitalization is the next closest thing. The concept is introduced that natural resources are part of the fixed capital asset of a state or nation. Like equipment, in the absence of regular investment, they begin to collapse. An explanation is given for how overly high consumption of resources results when we fail to account for environmental and social costs of extraction and processing, or when we price to encourage heavy consumption. The characteristics of natural resources that prevent the free market system from allocating these resources efficiently are explained as well as the role of state policy to correct these failures.

State strategies for investing in natural resources are discussed, with case studies of California's "Investing for Prosperity" program and Massachusetts' growth policy planning process. Discussion on the strength and pitfalls of these programs sheds light on their possible applicability to regional and local areas. The role of natural resource enterprises, barriers they face, and steps that states can take to overcome these barriers are reviewed. Targeted tax, expenditures, and regulatory policies that preserve and enhance the amenity resources that attract new businesses are discussed. Finally, state strategies to achieve short-term development and long-term economic renewal, and the keys to successful implementation, conclude the book. While written for state audiences, there is much to recommend the book to development specialists pursuing economic opportunity through protecting and utilizing a rural region's natural assets.

SOURCE

The Council of State Planning Agencies (CSPA), Hall of the States, 400 North Capitol Street, Suite 291, Washington, DC 20001. Phone 202-624-5386. $16.95, prepaid.

DOC. NO. 548 *Directory of West Virginia Producers Selling Agricultural Products in Direct Markets*

Templeton, Mary E.; Jack, Robert L.; Yoder, Delmar;
Howdershelt, Kevin

Morgantown, WV: Agricultural and Forestry Experiment Station, West Virginia University, Circular 143, 1987

ANNOTATION This directory was designed to help consumers, wholesale buyers, and producers know where fruits, vegetables, and other agricultural products are being directly marketed in West Virginia. A commodity index is provided to help identify direct marketing commodities by location. Such a directory would help producers and rural development organizations pursue value-added opportunities for their local agricultural products.

SOURCE Mailing Room, Communications Building, West Virginia University, Morgantown, WV 26506. Phone Mildred Spangler, 304-293-6366. Ask for Circular 143. Free.

DOC. NO. 549 Series of publications on rural economic development

Kansas City, MO: Midwest Research Institute

SUBJECTS Agricultural diversification, community development, value-added agribusiness, secondary manufacturing, tourism development, forest industry park, organizing, cooperatives, education, technical assistance

ANNOTATION Two of Midwest Research Institute's rural economic development publications produced for the U.S. Economic Development Administration have guidance that would be relevant to natural resource-based strategies. *Profiles in Rural Economic Development* (1988, 142 pp.) highlights the diversity of economic development efforts that are beginning to succeed in small towns and rural areas across the country. Each of the 65 profiles is two pages in length and includes a description of the strategy, the organization and funding for the initiative, key benefits, and a local contact person. The case studies were generally selected to demonstrate alternatives to traditional industrial recruitment approaches. Many reflect efforts to utilize natural resources more fully through their economic development strategy. Examples include broiler house investment, a fish hatchery, tourist attractions, secondary food processing, an agricultural park, a forest industry park, a food industry association, and cooperatives. The publication makes extensive use of quotes from community leaders to highlight keys to success and pitfalls to avoid.

A Portfolio of Community College Initiatives in Rural Economic Development (1989, 107 pp.) was intended for use by community and technical college administrators and by local community leaders and economic development organizations in rural areas. There are 20 profiles of rural community and technical college programs described. Included are programs on ag trade development, a craft cooperative, farm business management, growers' cooperatives, and rural diversified enterprise centers. The goals, service delivery methods, recruitment of participants, and staffing and funding requirements of programs are described. Local contacts are also provided. This publication would be valuable for local and regional development groups to use to explore natural resource opportunities in conjunction with local postsecondary educational institutions.

SOURCE Margaret Thomas, Midwest Research Institute, 425 Volker Boulevard, Kansas City, MO 64110. Phone 816-753-7600, Ext. 449. Each publication is $15.00. Ask for a list of other publications in rural economic development.

DOC. NO. 550 *Organizing a Food Industry Association*

Sullivan, Suzanne

Kansas City, MO: Midwest Research Institute, 1989, 70 pp.

ANNOTATION This publication presents a practical, detailed description of how to organize a nonprofit food industry association that supports agricultural diversification and serves as one vehicle for rural economic development. It is based on the author's work with communities in New England. It presents a good overview on how to determine if one's rural area would benefit from a food association, how to get such an organization off the ground, and how to keep it functioning to meet the needs of its members and also benefit the rural area.

SOURCE Economics Reference Center, Midwest Research Institute, 425 Volker Boulevard, Kansas City, MO 64110. Phone 816-753-7600. $10.00. Request Technical Paper No. 1 in the Rural Natural Resources Development Series.

DOC. NO. 551 *A Generalized Guide to Small Aquaculture Enterprises*

Keyes, Daniel R.

Kansas City, MO: Midwest Research Institute, 1989, 32 pp.

ANNOTATION Part I of this publication introduces aquaculture as the fastest growing sector of agriculture in the United States today. The paper briefly discusses production trends, market demand characteristics, resource requirements, overcoming barriers, future trends, and development strategies for rural areas interested in encouraging small aquaculture enterprises. Part II is a stepwise guide for a successful aquaculture venture. The steps discussed are:

- Study of market potential and location factors.
- Initial selection of species.
- Initial selection of production method.
- Selection of companion or ancillary operations and services.
- Determination of financial feasibility.
- Selection of final production design and implementation.
- Marketing.
- Continuous business management.

Appendices list sources of further information and a detailed bibliography that is cross referenced by subject area.

SOURCE Midwest Research Institute, 425 Volker Boulevard, Kansas City, MO 64110. Phone 816-753-7600. $10.00. Request Technical Paper No. 2 in the Rural Natural Resources Development Series.

VI. A Guide to Rural Economic Development Through Tourism and Wildlife – Based Recreation

VI. A GUIDE TO RURAL ECONOMIC DEVELOPMENT THROUGH TOURISM AND WILDLIFE-BASED RECREATION

The natural resources of rural areas are often scenic or interesting attractions for nonrural residents. Rural assets may include farms, ranches, forests, orchards, and rivers and streams. With minimal investment they may also include bird watching sites, fall foliage routes, harvest trails, nature trails, picnic areas, or just open space and remoteness. Rural areas often have special events that are unique to urban dwellers, such as agricultural fairs, animal shows, barbeques, barn dances, farm tours, fishing derbies, harvest celebrations, hayrides, living history festivals, rodeos, threshing bees, and tractor pulls. And wildlife-based recreation enterprises, cultural and historical attractions add still more opportunities to the list. There is a natural fit between most rural areas and at least a modest level of tourism development. Rural areas should seriously consider at least some level of tourism development activity.

But many rural areas have been reluctant to pursue tourism as part of an economic development strategy. This section deals with some of the most frequently heard concerns about tourism in rural development. Much of the text was adapted from materials referenced in Document No. 701 in Section VII. Following the discussion on tourism are some suggestions for pursuing wildlife-based enterprises in rural areas.

IS TOURISM REALLY A GOOD STRATEGY FOR RURAL AREAS? AREN'T TOURISM JOBS LOW WAGE AND SEASONAL?

Tourism businesses generally do have part-time, seasonal, and full-time positions, but this can be said for most types of businesses to some degree or another. Similarly, in tourism businesses some positions are entry level, some technical, some midlevel management, and some executive management. Not everybody can be the "top" paid person in any business. Examples of entry-level positions in tourism are bellhops and waitresses; examples of executive-level jobs in tourism are airline pilots and airport managers. But remember that tourism often employs people who need jobs the most, such as women, minorities, and youth. And many rural residents do not want technical jobs and are not looking for full-time work. In fact, many are seeking part-time positions to supplement other sources of income.

It is possible to plan a tourism industry that is not highly seasonal, for example, by finding ways to lengthen the travel season into the spring, fall, and winter months. For example, bringing convention groups into the area, catering to hunters and anglers, or creating educational or cultural programs through a local educational institution are all ways to reduce the seasonality.

OUR AREA IS OFF THE BEATEN PATH—AND WE'RE NOT ON THE INTERSTATE SYSTEM. HOW COULD WE EXPECT TOURISTS?

There are many towns off the main highways who are using tourism as an important source of jobs and income. The secret to getting tourists to your area is to market. If you motivate them, tourists will find you, no matter where you are located. There are many examples of small isolated communities that have successfully made tourism a principal economic activity; you'll find many described in the materials in the bibliography.

WHAT IF OUR AREA DOESN'T HAVE ANYTHING FOR A TOURIST TO SEE OR DO?

Tourists are looking for an "experience"--wherever it may be found. Many tourists are tired of crowded population centers and now seek out small towns and unincorporated communities. Often the quiet, restful, passive experiences come only from areas with small populations.

You would be surprised what a close look at a detailed road map of your county and adjacent counties would show you. Remember, tourists are from outside your area and will be interested in the unique items in your area--items that you may take for granted because they are common locally. Natural as well as man-made attractions are assets. Natural sites might include geological formations, forests, lakes, rivers, waterfalls, caves, mountains, scenic views, wildlife, flowers, etc. Man-made attractions might include historic or cultural sites and structures as well as industrial or commercial recreation facilities. Examples might be battle sites, burial grounds, old forts or barracks, pioneer churches, old mills, old or Early American farm implements, Indian remains, ghost towns, religious shrines, old homes of famous people, mines, power plants, swimming pools, forests, game farms, or wildlife exhibits. Other attractions include unusual crops; flowers and gardens; orchards; blooming trees; golf courses; old theaters or opera houses; lumber camps; dams; modern mills, mines, or factories; fish hatcheries; quarries; unusual livestock; fur farms; schools and colleges; summer schools and camps; experimental farms; and scenic lookouts, overlooks, and fire towers.

Every area has points of interest that would be fascinating to tourists, and products and experiences indigenous to the area. Several of the materials in Section VII offer checklists to help identify these. The key is to package them so that the tourist has access to them. Anything from old buildings to special crops, natural formations to special events can be interesting to someone if they can't see it back home.

WHAT IF ALL WE HAVE IS OUR SCENERY, OUR RURALNESS?

Scenery alone can pay handsome dividends if it is presented right. You can provide lots of different "offerings" to tourists using your scenery. For example, scenic resources can provide the base for a self-guiding car tour, a sunrise and sunset photography tour, a fall color tour, an outdoor photography tour, or an outdoor field school.

There are technical assistance materials to help develop any of these ideas. For instance, the self-guiding car tour would require planning on a budget; selecting a route; selecting the sites; naming the tour; writing a narrative for each site; taking photographs; designing and printing the brochure; and distributing the brochure effectively.

HOW WOULD WE GET STARTED IN TOURISM DEVELOPMENT?

As is the case in any areawide activity, organization is the key to success. A single citizen, although anxious to develop his or her area's travel potential, can do very little alone. It is only through organized community effort that most objectives can be accomplished. The first step, then, in any rural area travel development program is the organization of a tourism or travel development organization.

Many communities have active chambers of commerce that already have tourism development groups. If such an existing committee has broad-based areawide representation, it may be an ideal steering committee for forming a regional organization. A regional approach is essential in a rural area because it allows pooling of resources, knowledge, and skills--and produces more clout and higher visibility.

If no group exists yet in your region, it will be necessary to organize one, either through interested service clubs or by a few interested citizens, businesses, or civic officials. Whether an existing group is used or a completely new steering committee is organized, it is important that membership not be confined to the travel business alone. All segments of the community should be represented.

This steering committee will be charged with arranging the first meeting, at which time a full Travel and Tourism Development Committee will be created. A large meeting place should be selected to conduct the meeting. Following is a typical list of people and groups to invite to the organization meeting:

- Town or county officials
  - County commissioners
  - Mayor or chief executives
  - City council leaders
  - Other local political leaders
  - Director of Planning Commission
  - Director of any economic development organization
  - Director of recreation and parks organizations
  - County agent
  - Chief of police
- Civic, church, and cultural organization representatives
  - Chambers of commerce
  - Rotary Club
  - Lions Club
  - Kiwanis Club
  - Other service clubs
  - Veterans organizations
  - Women's clubs
  - League of women voters
  - Garden clubs
  - Church groups
  - Cultural groups: arts, music, drama, historic, and folklore societies
- Local businesspersons
  - Oil jobbers and distributors
  - Service station dealers
  - Automobile dealers
  - Tire dealers
  - Garage and repair shop operators
  - Hotel and motel managers
  - Restaurant managers
  - Taxi and rental car operators
  - Grocers
  - Druggists

  - Hardware and lumber dealers
  - Apparel retailers
  - Sporting equipment retailers
  - Travel agents
  - Tourist attraction operators
  - Theater and amusement operators
  - Real estate agents
  - Bankers
  - Insurance company executives
  - Public utility executives
  - Executives of leading manufacturing industries
  - Shopping center and department store managers
  - Transportation representatives: air, rail, and bus

- Educational and religious leaders
  - Colleges
  - Primary and secondary schools
  - Private schools
  - Religious organizations

At the meeting, officers should be elected and an executive committee set up to develop the policy and strategy of the entire tourism development program for the area. Depending on the scope of the plan, it may be advisable to assign subgroups to oversee various tasks. For example, a program could be started with the following subcommittees:

- Promotion and publicity
- Community projects and special events
- Finance
- Hospitality
- Town development and improvement
- Visitor information center

Possible activities for these subcommittees can be found in the bibliographic materials.

WHO COULD HELP US WITH OUR DEVELOPMENT EFFORT?

Many individuals and a number of country, regional, state, and federal agencies and institutions are available to assist you in your travel and tourism development activities. Here are just a few of them:

- Regional organizations: For purposes of the most effective area promotion, most states have grouped their counties into promotional regions, each with a degree of scenic and economic unity. In several of these regions, regional organizations are already active in a number of cooperative travel promotion ventures. Contact these regional organizations, and be aware of their programs. If no regional group exists in your area, you may wish to help get one organized.

- State universities and extension services: Through their extension services, state universities are involved in campus staff recreation and tourism planning, advice on facilities development, and other services that may be of assistance to you. For information, contact your state university or university extension service.

- State travel councils: Most states have a wide variety of services and materials, and assistance can be obtained for your program through your state travel council.

- Trade associations: Area businesses can be encouraged to join and support the activities of their various trade associations. Motels, hotels, petroleum retailers, restaurants, guided tour operators, travel agents, and many other businesses are all represented by state associations. Chambers of commerce leaders should be affiliated with their state Chamber of Commerce Executive Association. All of these organizations provide their members with a forum for exchange of ideas and a united front for action.

WHAT ABOUT FINANCING OUR PROGRAM?

The job of providing financial backing for your program will be the responsibility of your finance person. Of course, each area's program will vary according to what the area needs and can afford. In most cases, some money should be available for travel development from chambers of commerce and city or county governments. An effective way of raising additional money and building communitywide support for the program is to pass a local lodgings tax and designate all or most of the receipts to the development activities. This will be taxing the nonresident to provide income for tourism activities.

WHO ELSE SHOULD BE INVOLVED?

Areawide support is vital. If a tourism project is to be successful at all, it must have the full backing of area leaders, businesses, service clubs, and the citizenry at large. Your group's promotion and publicity person will have the highly important function of encouraging local businesses, industries, and the communications media to support the program through their own editorials, advertising, and promotion programs.

- Local industries and merchants should be solicited to support the program in their own advertising. Their advertisements could carry a slogan or an announcement concerning the overall program or special event to take place.

- Local merchants and businesses usually feature one or more promotions each year. It would help the community travel development program if travel could be made a part of each featured promotion. Special sales on camping equipment, picnic foods, photo contests, athletic equipment, etc., could be held. Merchants could dress their windows with a travel theme. Posters, road maps, and other materials for window displays can be obtained from the state tourism departments, local chambers of commerce, service stations, petroleum companies, transportation companies, and travel agents.

- Local newspapers and radio and television stations should be contacted and encouraged to use the subcommittee's travel promotion materials. Articles should be developed on the attractions of historic, scenic, and recreational interest within a 50- to 75-mile radius. It may be necessary to hire a professional writer in the community to prepare the stories. Regular feature materials, articles, maps, and photos are available from your state tourism offices.

- Clubs and associations should be contacted regarding having speakers to generate enthusiasm for tourism generally and for the area's tourism efforts.

A tourism program with areawide support and enthusiasm will work wonders in building rural pride and community spirit. And the key is to involve many others in the program through these and other activities.

HOW WOULD WE BUILD WILDLIFE INTO OUR TOURISM DEVELOPMENT PLAN?

Wildlife are certainly among a rural area's natural resources. Strong demand for wildlife-associated recreation is continuing in this country. Rural lands offer great opportunity to add value to the recreational experiences that are being sought. Part of the management and conservation challenge of the future will be to find a way to capture more of the economic value of our rich wildlife resources. Later in this section are some specific initiatives.

IS THERE REALLY A MARKET FOR WILDLIFE-BASED RECREATION?

The demand for wildlife-associated recreation is increasing and is expected to continue to increase in the future. The economic dimensions of this demand are substantial. For example, in 1985, over 140 million Americans 16 years of age and older participated in at least one wildlife-related activity. This group included 46.4 million anglers, 16.7 million hunters, and 134.7 million participants in other wildlife-associated recreation. Those who hunted had expenditures of $10.1 billion. Total wildlife-associated expenditures were $55.7 billion, and $1.0 billion of this amount was for landownership or leasing cost in connection with the activity. Membership dues and contributions accounted for $368 million. There were 29.3 million people who took trips of at least 1 mile from their homes for the primary purpose of observing, photographing, or feeding wildlife, and they spent $4.4 billion in connection with these trips.

With shorter workweeks and more free time, the demand for recreation is increasing nationwide. A major part of this recreation time will be spent in activities associated with wildlife resources. In most cases it is the urban population that is pursuing this recreation, while it is the rural population that controls its quantity and quality.

HOW CAN PRIVATE LANDOWNERS HOPE TO BENEFIT FROM SOMETHING AVAILABLE FREE ON PUBLIC LANDS?

The availability of public land that offers these opportunities is likely to remain stable. The greatest opportunity for increasing the access to wildlife-related activities will be found on privately owned land. Rural landowners or groups of landowners can begin to control access to and manage these resources as well as develop associated amenities that add value to the recreational experience (e.g., accommodations and other services that cater to hunters and sightseers). Fortunately, in the case of quality outdoor recreation opportunities (especially hunting), distances of 100 miles are not too great. As lands become more valuable for recreation, adjacent lands also increase in value because of the reputation of the area. Thus landowners and businesses that cater to the users of these local resources stand to benefit as well. Finally, enhanced wildlife-based recreational opportunities improve the local quality of life, which in turn provides an additional attraction for new industrial investments from outside sources, i.e., everyone benefits.

CAN YOU ADD VALUE TO WILDLIFE RESOURCES?

Value certainly can be added to wildlife-based economic ventures. For example, the value of one deer may be $200 as a marketable product to hunters. If the quality of the hunting experience is improved through management, one deer might become worth $500 or more. Value can be added to the hunting experience with lodging, consolidating land ownerships to improve management, and controlled harvests to improve the quality of "trophy" antlers.

WHERE WOULD WE GO FOR HELP IN PLANNING A WILDLIFE-BASED ENTERPRISE?

State wildlife agencies are a good place to start. State wildlife agencies generally employ wildlife biologists, technicians, and county conservation officers (game wardens) to enforce game laws and administer wildlife management areas and other public hunting areas. They also work with hunting clubs and private landowners to improve wildlife habitat and manage game harvests.

With the popularity of fee hunting increasing, it is very likely that your state wildlife agency will have a wildlife biologist able to provide assistance in planning economic ventures focused on wildlife resources.

It is important that you seek out a professional wildlife biologist in your contact with the state wildlife agency. While your closest local contact with the state wildlife agency may be the local conservation officer (i.e., game warden), this individual is involved primarily in law enforcement. You will also need a broad perspective on wildlife management, biology, and utilization.

In addition to consulting foresters, wildlife management consultants may also be located in your area. In some cases, they are one and the same. Many professional foresters have training and experience in wildlife management. In any case, consultants may be a valuable source of information and assistance.

In addition, state wildlife federations, which are generally affiliates of the National Wildlife Federation, are made up of local people with an interest in wildlife. They may have some information on wildlife ventures already in your state. They may also have information (sources) on other magazines, newsletters, tabloids, etc., that cater to people who are potentially interested in your area for hunting or wildlife-related recreation. Appendix A lists state wildlife federations or affiliates.

If you develop a strategy for wildlife-related recreation, the wildlife federation would be important as a source of support and publicity. The wildlife federation typically lobbies in state legislatures for laws that favorably affect both landowners and the public.

WHAT KINDS OF WILDLIFE INFORMATION DO WE NEED?

In order to determine if wildlife resources offer economic enterprise opportunities, there are some parameters that need to be determined.

1. Wildlife population estimates. Wildlife population densities have a direct effect on the value of land for both hunting and nonconsumptive use. If population densities of major game species are high, it is likely that the demand for hunting in the area will already be obvious. However, the availability of minor game species may provide an opportunity for promotion and eventual demand for additional hunting opportunities.

2. Current habitat quality. If good wildlife densities are not currently present, it may be for reasons other than habitat quality. Lack of game law enforcement, excessive poaching, or other problems may be the reason for low populations. An assessment of habitat quality will allow you to visualize opportunities for management of popular game species subject to better game law enforcement and wildlife protection.

3. Potential populations and habitat quality. This is simply a vision of what could be in an area. Wildlife is a renewable resource. With adequate protection and proper management and maintenance, wildlife populations can be re-created and sustained indefinitely. What is the real potential for your area?

4. Hunter demand. What is the population of potential hunters within a certain radius of your area? State wildlife agencies often conduct hunter surveys and may have records of hunting licenses purchased in certain areas of the state.

5. Other wildlife-related economic ventures. Are there examples of other activities in your area where wildlife is used to stimulate some sort of economic activity? In other words, is anyone else doing what you're considering? This should not be considered competition because in many ways it could enhance your efforts. If the other enterprises are successful, "the more, the better." A good example is Texas: if only one ranch in Texas were providing exceptional fee hunting opportunities, it's doubtful that Texas would have developed the reputation it has for being a major deer hunting state.

6. Unique observation areas. It is very possible that some unique natural phenomenon or site related to wildlife populations may exist within your rural area. Is it sufficiently unique to attract attention from nonlocal people? Is there an opportunity to utilize it for some form of outdoor recreation while still protecting and maintaining its integrity?

7. Wildlife resources data should be available through your state wildlife agency. In some cases the wildlife agency has cooperative research efforts under way with state universities.

WHAT ARE SOME EXAMPLES OF WILDLIFE-RELATED RURAL DEVELOPMENT INITIATIVES?

Here are three ideas.

1. Help landowners develop campgrounds and lodging associated with outdoor recreation. Private campgrounds and associated home-based businesses can enhance the value of lands for hunting, fishing, and other outdoor recreation. Hunting, fishing, and other outdoor recreation opportunities create tourism. Small, family-operated rural businesses such as motels, resorts, and restaurants can help diversify and stabilize the economic base of a rural area.

   If public campgrounds are not available in the area, private commercial campgrounds may be a viable economic opportunity. Location is obviously one of the most important considerations. Campgrounds should be located near the natural resource features. Obviously, the greater the attraction to the area, the greater the demand for camping or other lodging.

   Rural home-based "bed and breakfasts" are an alternative form of lodging that has shown recent growth in some states. As in other endeavors, feasibility studies should be completed prior to any major investments. The business management skills of the owner/operators can often be the difference between success or failure; management training should be sought and is often available through local educational institutions. Also, individuals interested in private campgrounds, bed and breakfasts, and other activities should visit similar businesses located near their area.

2. Provide fee hunting and leases. Fee hunting on large ranches in Texas has been popular for several years. Land leasing by hunting clubs has steadily increased throughout the country. An influx of hunters to a rural community could be an economic benefit just like any other tourism attraction. Local businesses such as motels, restaurants, campgrounds, bed and breakfasts, and sporting goods stores are obvious beneficiaries. In addition, the landowners benefit directly from lease and fee income.

   Fee hunting and leasing are more easily adapted to large land tracts. However, it is possible to organize many smaller ownerships into one large manageable unit for purposes of leasing and fee hunting.

   Before substantial income can be expected from fee hunting and leases, demand must exist. The demand may result from an extreme shortage of available hunting land in the area, good game populations, or the opportunity to collect a trophy animal. For example, land lease values for big game hunting are highly correlated with deer density in some areas, while other areas have developed a reputation for producing "trophy bucks."

   To sustain adequate populations and quality hunting, game harvests must be controlled and habitat must be managed and maintained. A professional wildlife biologist will be a necessary source of guidance to the landowners considering this option.

   Some consideration should be given to local attitudes toward land leasing and fee hunting. In some areas of the country, rural people have traditionally hunted on their neighbors' lands. In other cases, local clubs have had access to local land for nominal fees. Obviously, a landowner should have the right to control access to his or her property and maximize income from the resources produced on that property. But local people may not be able to afford to pay the fees that good hunting areas can demand.

3. Promote development of game farms and shooting preserves. This alternative involves commercialization of the resource to a greater extent than land leasing or fee hunting. Natural game populations may be supplemented by pen-raised animals, particularly game birds. Pen-raised game may not be subject to the same game laws as wild game and may provide longer hunting seasons, increased bag limits, and, therefore, increased income to the owner.

   Exotic species of big game animals have been used in Texas for many years to enhance sport hunting opportunities on private ranches. Exotic species such as fallow deer, axis deer, sika deer, blackbuck antelope, and several species of wild sheep are not subject to regular hunting season restrictions. Landowners have used this opportunity to expand to virtual year-round enterprises. Native big game still remains the No. 1 attraction, but the combination of all opportunities can provide significant economic returns. Prices may be based on a daily rate, length of stay, or number of animals taken. Several states now have ranches on which returns from big game hunting exceed the returns from normal ranch income.

   Exotic animals may also be raised for meat production. The meat generally brings higher prices per pound than domestic cattle, while feed costs per animal may actually be lower. Any introduction of exotic animals should be based on a study of potential impacts on native game and habitat and adherence to state and federal regulations.

HOW DO WE KNOW WHEN WE HAVE FOUND AN OPPORTUNITY?

It is likely that the committee members will recognize opportunities related to their area of expertise. The committee should look for such signs as abundance of particular species; exceptional demand for activities, products, or services; underutilization of resources; etc. Examples of these signs might include high densities of popular game species; the presence of rare or endangered species of plants or animals; recent successes in land leasing to outdoor recreation enthusiasts, etc.

Some opportunities may reach out and tap you on the shoulder. However, many will be less obvious. Many opportunities require a long-term plan--actions to stimulate better wildlife management in a county and the access to enjoy it, for example. It may be frustrating if the payoff is years ahead; but such a move is almost guaranteed to be successful and could provide a solid foundation for future economic development based on wildlife resources. The bibliography that follows gives many ideas and useful tools.

APPENDIX A

STATE WILDLIFE FEDERATIONS OR AFFILIATES

STATE WILDLIFE FEDERATIONS OR AFFILIATES

Alabama Wildlife Federation, P.O. Box 2102, Montgomery, AL 36102. Phone 205-832-9453.

Alaska Wildlife Federation, P.O. Box 103782, Anchorage, AK 99510. Phone 907-694-9068.

Arizona Wildlife Federation, 4330 North 62nd Street, No. 102, Scottsdale, AZ 85251. Phone 602-946-6160.

Arkansas Wildlife Federation, 7509 Cantrell Road, No. 226, Little Rock, AR 72207. Phone 501-663-7255.

California Natural Resources Federation, 2830 Tenth Street, Suite 4, Berkeley, CA 94710. Phone 415-848-2211.

Colorado Wildlife Federation, 1560 Broadway, Suite 895, Denver, CO 80202. Phone 303-830-2557.

Connecticut Wildlife Federation, 27 Washington Street, Middleton, CT 06457. Phone 203-347-1291.

Delaware Wildlife Federation, P.O. Box 8111, Newark, NJ 19711.

Florida Wildlife Federation, P.O. Box 6870, Tallahassee, FL 32314. Phone 904-656-7113.

Georgia Wildlife Federation, 1936 Iris Drive, Suite G, Conyers, GA 30207-5046. Phone 404-929-3350.

Hawaii Conservation Council, Box 2935, Honolulu, HI 96802. Phone 808-941-4974.

Idaho Wildlife Federation, 2405 Fifth Street, Lewiston, ID 83501. Phone 208-746-9046.

Illinois Wildlife Federation, 123 South Chicago Street, Rossville, IL 60963. Phone 217-748-6365.

Indiana Wildlife Federation, Box 283, Zionsville, IN 46077. Phone 317-873-3915.

Iowa Wildlife Federation, 2749 Balboa Drive, Dubuque, IA 52001. Phone 319-556-0088.

Kansas Wildlife Federation, P.O. Box 5711, Topeka, KS 66605. Phone 913-266-6185.

League of Kentucky Sportsmen, P.O. Box 406, Fort Thomas, KY 41075. Phone 606-781-3464.

Louisiana Wildlife Federation, 337 South Acadian Throughway, Baton Rouge, LA 70806. Phone 504-344-6707.

Maine Natural Resources Council, 271 State Street, Augusta, ME 04330. Phone 207-622-3101.

Maryland--none listed.

Massachusetts Wildlife Federation, 295 East Riding Drive, Carlisle, MA 01741. Phone 617-369-3118.

Michigan United Conservation Clubs, Box 30235, Lansing, MI 48909. Phone 517-371-1041.

Minnesota Conservation Federation, 1036-B South Cleveland Avenue, St. Paul, MN 55116. Phone 612-692-3077.

Mississippi Wildlife Federation, 520 North President Street, Jackson, MS 39102. Phone 601-353-6922.

Missouri Conservation Federation, 728 West Main Street, Jefferson City, MO 65101-1543. Phone 314-634-2322.

Montana Wildlife Federation, P.O. Box 3526, Bozeman, MT 59715. Phone 406-587-1713.

Nebraska Wildlife Federation, 906 L Street, Lincoln, NE 68508. Phone 402-476-0581.

Nevada Wildlife Federation, P.O. Box 71238, Reno, NV 89570. Phone 702-825-5158.

New Hampshire Wildlife Federation, Box 239, Concord, NH 03301. Phone 603-224-5953.

New Jersey State Federation of Sportsmen's Clubs, P.O. Box 7065, Hackettstown, NJ 07840.

New Mexico Wildlife Federation, 300 Val Verde SE, Albuquerque, NM 87108. Phone 505-265-7372.

New York State Conservation Council, 8 East Main Street, Ilion, NY 13357-1899. Phone 315-894-3302.

North Carolina Wildlife Federation, Box 10626, Raleigh, NC 27605. Phone 919-833-1923.

North Dakota Wildlife Federation, P.O. Box 7248, Bismarck, ND 58502. Phone 701-222-2537.

League of Ohio Sportsmen, 3953 Indianola Avenue, Columbus, OH 43214. Phone 614-268-9924.

Oklahoma Wildlife Federation, 4545 Lincoln Boulevard, Suite 171, Oklahoma City, OK 73105. Phone 405-524-7009.

Oregon Wildlife Federation, P.O. Box 4552, Portland, OR 97298. Phone 503-647-5796.

Pennsylvania Federation of Sportsmen's Clubs, 2426 North Second Street, Harrisburg, PA 17110. Phone 717-232-3480.

Environment Council of Rhode Island, P.O. Box 8765, Cranston, RI 02920.

South Carolina Wildlife Federation, P.O. Box 61159, Columbia, SC 29260-1159. Phone 803-782-8626.

South Dakota Wildlife Federation, 812 North Monroe, Pierre, SD 57501. Phone 605-224-5360.

Tennessee Conservation League, 1720 West End Avenue, Suite 308, Nashville, TN 37203. Phone 615-329-4230.

Sportsmen's Clubs of Texas, 311 Vaughn Building, No. 807 Brazos Street, Austin, TX 78701. Phone 512-472-2267.

Utah Wildlife Federation, P.O. Box 15636, Salt Lake City, UT 84115.

Vermont Natural Resources Council, 9 Bailey Avenue, Montpelier, VT 05602. Phone 802-223-2328.

Virginia Wildlife Federation, 4602 D West Grove Court, Virginia Beach, VA 23455. Phone 804-464-3136.

Washington State Sportsmen's Council, Box 357, Clear Lake, WA 98235. Phone 206-856-4774.

West Virginia Wildlife Federation, Box 275, Paden City, WV 26159. Phone 304-455-3342.

Wisconsin Wildlife Federation, Tranquil Acres, Reeseville, WI 53579. Phone 414-927-3131.

Wyoming Wildlife Federation, P.O. Box 106, Cheyenne, WY 82003. Phone 307-637-5433.

VII. Selected Technical Assistance Materials for Rural Economic Development Through Tourism and Wildlife – Based Recreation Resources

VII. SELECTED TECHNICAL ASSISTANCE MATERIALS FOR RURAL ECONOMIC DEVELOPMENT THROUGH TOURISM AND WILDLIFE-BASED RECREATION RESOURCES

The section that follows lists approximately 45 publications in either tourism development (700 series) or wildlife-based recreation (600 series).

TOURISM AND WILDLIFE-BASED RECREATION TECHNICAL ASSISTANCE MATERIALS

Doc. No.	Title	Institution or Author
700	Set of Tourism Publications	Minnesota Extension Service
701	Set of Materials on Tourism Development	Tennessee Valley Authority
702	Tourism USA--Guidelines for Tourism Development	University of Missouri-Columbia
703	Developing a Bed and Breakfast Plan	University of Illinois
704	Materials From Alberta's Department of Tourism	Alberta Tourism
705	Recreational Development of Your Community Waterfront	New York Sea Grant Extension
706	Organizing a Community Festival	Georgia Office of Rural Development
707	How to Open and Operate a Bed and Breakfast Home	Jan Stankus
708	Materials on Rural Conservation and Preservation	National Trust for Historic Preservation
709	Recreation and Tourism Resource Guide for Rural Colorado	University of Colorado
710	Sources of Assistance for Tourism in Texas	Texas A&M University
711	Tug Hill Recreation and Tourism Development Project--A Strategic Plan for Trail Development and Promotion	Tug Hill Commission, New York
712	Managing a Fee-Recreation Enterprise on Private Lands	Oregon State University
713	Tourism Information Series	Michigan State University
714	So You Want to Develop Tourism--A Checklist for Community Tourism Development	Purdue University
715	Farm and Forest Tours Brochure	Adirondack North Country Association, New York
716	Dealing With Change in the Connecticut River Valley: A Design Manual for Conservation and Development	University of Massachusetts
717	Materials on Assessing Community Tourism Potential	University of Idaho
718	Rural Tourism Marketing	Rural Tourism Center, California
719	"Protecting the Land and Developing the Land: How Can We Do Both?"	North Carolina Center for Public Policy
720	At Your Service: A Hospitality Training Program	Ball State University
721	Tourism Network Directory for the [illegible]	Adirondack North Country

Doc. No.	Title	Institution or Author
600	Increasing Wildlife on Farms and Ranches	Kansas State University
601	Materials on Wildlife as a Business	Colorado State University
602	Proceedings of the First Eastern United States Conference on Income Opportunities for the Private Landowner Through Management of Natural Resources and Recreational Access	West Virginia University
603	Managing Your Farm for Lease Hunting and a Guide to Developing a Hunting Lease	University of Delaware
604	Materials on Utilizing Wildlife Resources	Mississippi State
605	Developing Hunting Enterprises on Private Lands	University of Tennessee
606	Materials on Leasing Land for Hunting in the South and Southeast	University of Florida
607	Fee Hunting—Extra Income?	University of Missouri-Columbia
608	Set of Papers on Wildlife Production on Private Lands	University of California
609	Set of Papers on Wildlife Resources for Recreation Enterprises	Several sources
610	Improving Access to Private Land—A Path to Wildlife	Wildlife Management Institute
611	Income From Hunting Leases	Clemson University
612	Proceedings of the First Symposium on Fee Hunting on Private Lands in the South	Clemson University
613	Waterfowl Hunting Business Conference	Texas Agricultural Extension Service
614	Hunting Preserves for Sport or Profit	Texas A&M University
615	Using Natural Resources and Recreation	University of Tennessee
616	Big Game Ranching in the United States	Wild Sheep and Goat International, New Mexico
617	Recreation on Rangelands: Promise, Problems, Projections—Symposia Proceedings of the Society for Range Management	Texas Tech University
618	Developing Profitable Resource-Based Recreation on Private Land—Proceedings of the 1987 Pacific Northwest Range Management Short Course	Oregon State University
619	Wildlife and Recreation Management on Private Lands: A Guide for Washington	Washington Forest Protection Association
620	"A Wildlife Planning Process for Private Landowners"	Wildlife Society Bulletin
621	Annual Proceedings of the International Ranchers Roundup	Texas A&M University
622	Private Recreation on Agricultural Land: Fee-Based Hunting and Fishing—A [illegible]	U.S. Department of Agriculture
623	Agriculture and Wildlife video series	Kansas State University

Fourteen subject areas were identified to help readers select materials on a certain topic.[1] However, all of the publications are highly recommended for different aspects of a planning effort that focuses on rural tourism and wildlife-based enterprise development.

Ag diversification

600 606 613
601 607 614
602 608 615
604 610 622
605 612 715

Wildlife management

507 609 618
600 610 619
601 611 620
602 612 621
603 613 622
607 616 623
608

Recreation enterprises

502 607 617
509 608 618
525 609 619
600 610 621
601 611 622
602 612 623
603 613 701
604 614 702
605 615 711
606 616 712

Tourism development

502 701 711
508 702 712
509 703 713
515 704 714
524 705 715
525 706 716
543 707 717
546 708 718
549 709 720
700 710 721

Community development

700 708 717
701 715 719
704 716 721
705

Conservation

600 617 709
602 621 716
615 623 719

Alternative forest enterprises

604 607 611
605 608 613
606 610 715
608

Range management

524 606 617
600 609 621
601 616 622

Ranch business

530 601
600 621

Home entrepreneurship

530 600 705
541 700 707
547

Organizing

604 712 718
709 715 721

Resource assessment

530 709 718
607 717 721
617

Cooperatives

604 615

Marketing

617 704 718
700 716

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[1] [illegible]

DOC. NO. [illegible] Set of tourism publications

St. Paul, MN: Minnesota Extension Service

ANNOTATION There are several publications, videos, and bulletins available from the Tourism Center of the University of Minnesota. They include:

- *Using Tourism and Travel as a Community and Rural Revitalization Strategy.* 1989. J. Sem, editor. 215 pp. $20.00.

This publication contains the proceedings of a National Tourism Workshop of the Cooperative Extension Service held in May 1989 in Minneapolis, Minnesota. The purpose of the workshop was to document the ideas and resources that small rural communities can use to develop and expand businesses and services for tourists and travelers. The material was developed to help extension personnel, economic practitioners, and others assist local individuals and communities in using tourism development as a tool for rural revitalization. Over 35 papers are presented. Topics discussed include the activities of the nation's 15 state tourism research centers, the planning process for local tourism development, successful image development, the use of awareness workshops, tourism marketing, ag tourism, rural industrial plant tours, developing the bed and breakfast industry, hospitality training, developing a festival and event initiative, and increasing opportunities for wildlife encounters (nonhunting). Many excellent ideas and useful contacts are contained in this publication.

- A *Tourism Development Video Series* is available on the speakers from this same conference. Individual tapes (approximately 12 minutes long) on nine topics or all tapes on one cassette (90 minutes) can be rented ($5 Minnesota residents, $10.00 out of state) or purchased ($20.00 per tape or $100.00 for all tapes).
- A series of tourism booklets has been produced which provide very good and timely technical assistance for tourism development. They are:

  Courtesy Is Contagious. 1988. C. F. Dawson et al. No. CD-FO-[illegible]. 14 pp. $1.50.

  Community Travel and Tourism Marketing. 1987. B. Koth and G. Kreag. No. CD-FO-[illegible]. 8 pp. $2.00.

  Evaluating Tourism Advertising With Cost-Comparison Methods. 1988. B. Koth. No. CD-FO-[illegible]. 5 pp. $1.50.

  So Your Community Wants Tourism? Guidelines for Attracting and Serving Visitors in Your Community. 1988. L. Simonson, B. Koth, and G. Kreag. No. CD-[illegible]. [illegible] pp. $1.50.

  Tourism Advertising: Some Basics. 1987. B. Koth. No. CD-FO-[illegible]. 8 pp. $2.00.

  Tourism Brochures to Boost Business. 1987. D. [illegible], B. Koth, and G. Kreag. No. CD-FO-[illegible]. 4 pp. $1.50.

Additional bulletins and videos on bed and breakfasts include:

- *Family-Based Business: Starting a Bed and Breakfast or Farm Vacation Business.* 1988. W. [illegible] et al. No. CD-FO-[illegible]. 11 pp. $[illegible].
- *Family-Based Business: Establishing the Ambiance in a Bed and Breakfast.* 1987. [illegible]. No. CD-FO-[illegible]. 4 pp. $[illegible].

The first publication briefly discusses the concept of a bed and breakfast; implications for the family; furnishings and food; codes and regulations; insurance and taxes; the business plan and marketing; [illegible]

Also available are two videos: *Bed and Breakfast Operation: More Than Antiques*, No. CD-VH-3167, and *To Bed and Breakfast or Not to Bed and Breakfast: A Case Study*, No. CD-VH-3295. Videos are $100.00 to purchase and $10.00 to rent outside Minnesota ($8.00 within the state).

All of these materials are designed for Minnesota residents, but most of the advice would be useful anywhere.

SOURCE Distribution Center, Minnesota Extension Service, University of Minnesota, 3 Coffey Hall, 1420 Eckles Avenue, St. Paul, MN 55108. Phone 612-625-8173. Checks should be made payable to the University of Minnesota.

DOC. NO. 701 Set of materials on tourism development

Trussell, Gale R.

Knoxville, TN: Tennessee Valley Authority

ANNOTATION The Tennessee Valley Authority has published several excellent materials to provide technical assistance to local leaders interested in developing the travel industry as a local economic development strategy. There are two major publications. *The TVA Tourism Development Idea Book* is over 120 pages of ideas to develop the travel industry at the local level. Much of it is a compilation of bulletins on such subjects as getting started with a recreation enterprise, the production of festivals, planning special events, creating publicity, designing brochures, and sample marketing plans. The *Community Travel Development Manual* is a 27-page report that provides a basic "text" for developing a unified approach to realizing the full potential of a community's travel industry. Additional bulletins and brochures include:

- *Tourism—A Great Way to Stimulate Rural Economic Development*, an overview publication that explains why tourism is economic development just like manufacturing (11 pp.).
- *Planning for Tourism*, a brochure that summarizes the steps to take to sell tourism to a community, conduct a tourism survey, organize a program, and identify attractions (8 pp.).
- *The Press Trip*, a brochure suggesting how to show travel writers a certain attraction (8 pp.).
- *Effective Promotional Brochures*, a pamphlet discussing the questions to be answered prior to producing a brochure (7 pp.).
- *The Eight Favorite Excuses for Not Using Tourism for Economic Development*, a bulletin that refutes common misconceptions rural communities have about pursuing tourism (8 pp.).
- *How to Develop a Self-Guiding Auto Tour of Your Area*, a bulletin that briefly describes a methodology for developing such tours (7 pp.).
- *Breaking Public Misconceptions About the Travel Industry* also addresses common misconceptions and exposes the real facts (4 pp.).
- *Six Ways to Package Tourism in Rural Areas* describes the self-guiding car tour, "selling" the sunrise and sunset, fall color tours, artist stays, outdoor photography tours, and outdoor field schools (11 pp.).

- *Rx for Tourism Banker Blindness* gives three humorous case studies of misconceptions about tourism that have hindered its use as a rural development strategy (3 pp.).
- *Using Photographs in Travel Marketing Activities* gives good, nontechnical advice on improving photos (2 pp.).
- *Tourism: How Seasonal Is It?* refutes this claim of one of tourism's shortcomings (13 pp.).

While designed for southeastern U.S. communities, the materials are highly recommended for any region.

SOURCE Gale R. Trussell, Tennessee Valley Authority, Old City Hall 2C-41, Knoxville, TN 37902. Phone 615-632-7410. There is no charge for the materials.

DOC. NO. 702 *Tourism USA—Guidelines for Tourism Development*

University of Missouri, Department of Recreation and Park Administration

Columbia, MO: University of Missouri-Columbia, University Extension, [illegible], [illegible] pp.

ANNOTATION This is a comprehensive and well-developed text. Originally produced in 1978 as an aid to communities interested in developing tourism, it has been revised and expanded to include international marketing and visitor services for special populations. The material is organized to follow a general planning process, with sections on appraising tourism potential, planning for tourism, assessing products and markets, marketing, visitor services, and sources of assistance.

There are [illegible] appendices that include a sample organizational structure for a tourism promotion agency, articles of incorporation, bylaws, and program outline; sample ordinances establishing a tourism commission and local and state accommodation taxes; and lists of national and international organizations and sources of assistance. The publication offers many checklists, examples, and sample questionnaires.

SOURCE U.S. Travel/Tourism Administration, U.S. Department of Commerce [illegible], Washington, DC [illegible]. Phone [illegible]. Single copies are free; additional copies are $[illegible].

DOC. NO. 703 *Developing a Bed and Breakfast Plan*

Buchanan, Robert D.; Espeseth, Robert D.

Urbana, IL: University of Illinois Cooperative Extension Service, North Central Regional Extension Publication [illegible], [illegible], [illegible] pp.

ANNOTATION This publication provides very good information for those planning to operate a "bed and breakfast" as a full-time business for profit. Presented in stepwise fashion, chapters discuss sources of professional assistance, self-evaluation, developing the business concept, researching the market, forecasting revenue, choosing a location, developing a marketing plan, developing an organizational and operational plan, legal issues, insurance, and developing a financial plan. Appendices provide several good [illegible] and [illegible].

SOURCE Agriculture Publications Office, 69 Mumford Hall, 1301 West Gregory Drive, Urbana, IL 61801. Phone 217-333-2007. $2.00 for single copies; ask about discounts for large orders. Make checks payable to the University of Illinois.

DOC. NO. 704 Materials from Alberta's Department of Tourism

Edmonton, Alberta, Canada: Alberta Tourism, 1988, 216 pp.

ANNOTATION In 1987, Alberta Tourism developed the *Community Tourism Action Plan Manual* (1988, 216 pp.), which consists of four booklets in a notebook. Book 1, *Introduction*, is an overview of tourism—the industry and its impacts. Book 2, *Organization*, provides direction on developing a tourism policy and establishing a tourism action committee. Book 3, *Process*, focuses on developing a tourism action plan and discusses markets, assets, concerns, goals, objectives, action steps, municipal and public involvement, implementation, and monitoring. Book 4, *Appendices*, presents a sample action plan. Included in the manual are charts, checklists, forms, and other background information to help communities develop tourism action plans.

In response to community requests, a further document was developed—the *Community Tourism Marketing Guide*, by J. K. Stewart and W. W. Warner (1987, 130 pp.). The purpose of the guide is to help communities learn about tourism market analysis and several types of research a community can perform to identify and meet tourism demand. Chapters discuss planning, data, and analyzing the research and taking action. Appendices include several work sheets and forms.

These two publications are very appropriate for any community, even though the examples and sources of information listed relate only to Alberta communities.

SOURCE Community Services Branch, Alberta Tourism, 5th Floor City Centre, 10155-102 Street, Edmonton, Alberta (Canada) T5J 4L6. Phone [illegible]. Free.

DOC. NO. 705 Recreational Development of Your Community Waterfront

White, David C.; Voiland, Michael P., Jr.

Oswego, NY: New York Sea Grant Extension, SUNY Oswego, dated

ANNOTATION A [illegible]-page bulletin and [illegible]-minute video of the same title [illegible] which explains the basic principles of [illegible] community waterfront development [illegible] fishing [illegible] and [illegible]. [illegible] communities, but the [illegible] applicable.

SOURCE New York Sea Grant, [illegible] Oswego, NY [illegible]. Phone [illegible]. [illegible] publications [illegible]

DOC. NO. 706 *Organizing a Community Festival*
Georgia Department of Community Affairs
Atlanta, GA: Office of Rural Development, 1988, 15 pp.

ANNOTATION The community festival is presented in this guide as a way to establish a community identity and, in so doing, provide local businesses, artists, and craftspersons with new outlets; raise public revenues; and enhance cultural activities. Chapters address organizing and promoting the festival, public relations, record keeping, and miscellaneous considerations. Though written for Georgia communities, it would be useful in any state.

SOURCE Office of Rural Development, Department of Community Affairs, 1200 Equitable Building, 100 Peachtree Street, Atlanta, GA 30303. Phone 404-656-9790. Free.

DOC. NO. 707 *How to Open and Operate a Bed and Breakfast Home*
Stankus, Jan
Chester, CT: The Globe Pequot Press, 1989, 299 pp.

ANNOTATION This is a comprehensive training manual for current or prospective bed and breakfast hosts. It offers a complete course, including chapters on how to make the decision to start a bed and breakfast, what it takes to be successful, getting started, getting connected to reservation service organizations and assistance providers, publicity, dealing with guests, breakfasts, and the business end of bed and breakfasts. Appendices list "The Helping Hands Network" of state contacts happy to answer questions from aspiring hosts, reservation service organizations in North America, and state and local tourist offices.

SOURCE The Globe Pequot Press, 138 West Main Street, Chester, CT 06412. Phone 203-526-9571. $12.95 plus $2.00 for postage.

DOC. NO. 708 Materials on rural conservation and preservation
Washington, DC: The Preservation Press

ANNOTATION There are several excellent resources available that would be very pertinent to developing rural tourism based on an area's historic and cultural identity. These include:

- *Saving America's Countryside: A Guide to Rural Conservation*, by S. N. Stokes, E. Watson, G. P. Keller, and J. T. Keller, 1989, [illegible] pp., $[illegible] (paperback). This book tells how to organize a conservation effort, pass effective laws, set up land trusts, and use federal programs. There are [illegible] case studies included.
- *Rural Conservation*, [illegible], [illegible] pp., $[illegible]. This booklet focuses on protecting the rural countryside—both the buildings and communities of cultural significance and the farmland, forests, wetlands, and wildlife habitat that represent the harmonious relationship between the built, the agricultural, and the natural environments.

- *Protecting America's Historic Countryside*, by M. Fedelchak and B. Wood, 1988, 40 pp., $2.50. This publication documents the actual and potential contribution of historic preservation to rural America. It outlines the importance of our rural heritage and provides information on public policies and rural preservation activities. Appendices list preservation and conservation organizations.
- *Barn Again!—A Guide to Barn Rehabilitation*, by M. Humstone, 1988, 17 pp., $2.50. This publication emphasizes economic ways to preserve the original features of old barns while providing the efficiency needed to use the structures in new ways.

SOURCE Preservation Shops, National Trust for Historic Preservation, 1600 H Street NW, Washington, DC 20006. Phone 202-673-4200. Costs are noted above.

DOC. NO. 709 *Recreation and Tourism Resource Guide for Rural Colorado*

Gadsby, Tricia; Long, Patrick

Boulder, CO: Center for Recreation and Tourism Development, University of Colorado, 1989, 53 pp.

ANNOTATION This guide identifies sources of assistance for rural communities interested in assessing, developing, and implementing recreation and tourism initiatives. It is organized into four sections. Section 1 lists local, state, regional, and federal sources of assistance that can help communities in any of nine subject areas: natural, cultural, and historic attractions; services; environment; hospitality; transportation; promotion; and market research. Sections 2 and 3 give state funding sources and selected literature and trade publications. Appendices are extensive lists of contacts. The material is largely specific to Colorado. It is included here because it is a good model for a tourism resource guide that other states would do well to provide their rural communities.

SOURCE Center for Recreation and Tourism Development, College of Business and Administration, University of Colorado at Boulder, Campus Box [illegible], Boulder, CO [illegible]. Phone [illegible]. $10.00.

DOC. NO. 710 *Sources of Assistance for Tourism in Texas*

Frost, Sherman D., editor

College Station, TX: Extension Recreation and Parks, Texas A&M University, [illegible], [illegible] pp.

ANNOTATION This sourcebook was prepared to help Texas communities with their tourism information and networking needs. Three of the sections, options for financing and supporting tourism, national/international organizations, and selected bibliography, would be useful to communities in any state. It is also a model for communities to use in requesting comparable technical assistance information from their states.

SOURCE Extension Recreation and Parks, [illegible] Old Engineering Building, Texas A&M University, College Station, TX [illegible]. Phone [illegible]. [illegible]. A January [illegible] edition is expected to be available in spring [illegible].

DOC. NO. 711 *Tug Hill Recreation and Tourism Development Project—A Strategic Plan for Trail Development and Promotion*

Poisson, Susan

Watertown, NY: Tug Hill Commission, 1986, 27 pp.

ANNOTATION This interesting report presents an example of a regional approach to recreation and tourism development. The report was prepared as one component of an ongoing effort to help a specific rural region of New York take advantage of the economic opportunities offered by further development of the tourism industry. In addition to this report on trail development and promotion strategies, the Commission has also prepared "A Strategic Plan for Development and Promotion of Bicycling and Bicycle Touring in the Tug Hill Region" and "Tug Hill Recreation Guide: Hiking, Biking, X-Country Ski Trails, and Fishing Access in the Tug Hill Region." Additional reports to help develop and promote environmentally compatible recreation and tourism are also planned.

In the trail development and promotion report, the current state of trail development in the region is evaluated. Three case studies with examples of innovative recreation and tourism development initiatives in New Hampshire, Vermont, Minnesota, and New York are presented. A conceptual model of an integrated trail system in the Tug Hill region is developed. Eleven recommendations are made for further regional action. The publication is an excellent example of a strategy for developing one aspect of a region's natural resource assets.

SOURCE Tug Hill Commission, Dulles State Office Building, 317 Washington Street, Watertown, NY 13601. Phone [illegible]. The report on "Trail Development and Promotion" is $3.50/copy; "A Strategic Plan for Bicycling and Bicycle Touring" is $3.50/copy; the "Tug Hill Recreation Guide" is $1.75/copy.

DOC. NO. 712 *Managing a Fee-Recreation Enterprise on Private Lands*

Corvallis, OR: Extension Service, Oregon State University, Extension Circular [illegible] (EC [illegible]), [illegible], [illegible] pp.

ANNOTATION This publication was prepared to educate landowners in Oregon about the income possibilities from recreation when resources are well managed. Part 1 discusses starting the enterprise and is designed to assist landowners make the decision on whether or not to proceed with a fee-recreation enterprise. Part 2 presents legal considerations. Part 3 reviews alternative management strategies and types of property-use agreements. Part 4 provides information on marketing, advertising, and public relations. There is a set of four work sheets. Fee-hunting enterprises are emphasized, but the principles apply to other forms of fee-based recreation as well.

SOURCE Publication Orders, Agricultural Communications, Oregon State University, Administrative Services Building [illegible], Corvallis, OR [illegible]. Phone [illegible]. [illegible] (includes shipping). Ask for EC [illegible].

DOC. NO. 713

Tourism information series

McDonough, Maureen H., editor

East Lansing, MI: Travel, Tourism and Recreation Resource Center, Michigan State University, 1986-1987

ANNOTATION

There are 12 small, useful booklets in this series. They are:

1. E-1937, *Tourism and Its Significance in Local Development* ($0.60)
2. E-2004, *Tourism Planning* ($0.90)
3. E-1958, *Developing a Tourism Organization* ($0.65)
4. E-1959, *Tourism Marketing* ($1.00)
5. E-1992, *Feasibility Analysis in Tourism* ($0.90)
6. E-1939, *Developing a Promotional Strategy* ($0.85)
7. E-1957, *Creating a Promotional Theme* ($0.70)
8. E-1940, *Information and Traveler Decision Making* ($0.70)
9. E-1938, *Managing Tourism Information Systems* ($0.60)
10. E-2005, *Selecting Promotional Media* ($0.60)
11. E-1999, *Pricing Tourism Products and Services* ($0.65)
12. E-1960, *Direct Marketing of Agricultural Products to Tourists* ($0.95)

Together, these booklets provide very readable information and guidance for developing a tourism strategy.

SOURCE

Travel, Tourism and Recreation Resource Center, 172 Natural Resources Building, Michigan State University, East Lansing, MI 48824-1222. Phone 517-355-1822. $9.00 for the set; individual booklets are priced as shown above.

DOC. NO. 714

So You Want to Develop Tourism—A Checklist for Community Tourism Development

Morrison, Alastair

West Lafayette, IN: Purdue University, undated, 9 pp.

ANNOTATION

This report presents five keys to success in community tourism development: get organized, take inventory, analyse the future, plan for the future, and monitor and evaluate results. There are five pages of checklists to help organizations go through each step. The material is brief but highly useful.

SOURCE

Restaurant, Hotel, and Institutional Management Institute, 101 Young Graduate House, Purdue University, West Lafayette, IN 47906. Phone 317-494-2748. *Free.*

DOC. NO. 715

Farm and Forest Tours brochure
Adirondack North Country Regional Map

Adirondack North Country Association

Lake Placid, NY: The Adirondack North Country Association, [illegible]

ANNOTATION

The Adirondack North Country Association (ANCA) is an organization which serves as a regional economic catalyst for the 14-county area of northern New York. It has [illegible] years of association and history. The ANCA program works to promote and market the region in five areas: agriculture, economic development, services and culture, natural resources, and tourism.

The *Adirondack North Country Regional Map* offers motorists self-guided tours to eventful celebrations, attractions, and accommodations throughout the 14-county region. The map and the *Farm and Forest Tours* brochure incorporate a system of state-legislated "auto trails" crisscrossing the region. The brochure leads visitors to farm and forest tours, farm bed and breakfasts, museums, agricultural fairs, historic sites, demonstration farms and forests, woodsmen's field days, wool farms, and maple sugar operations. The brochure and map are very good examples for other regions to consider in preparing a tourism development strategy.

SOURCE Adirondack North Country Association, P.O. Box 148, Lake Placid, NY 12946. Phone 518-523-9820. The brochure is $0.45; the map is $1.25.

DOC. NO. 716 *Dealing With Change in the Connecticut River Valley: A Design Manual for Conservation and Development*

Yaro, Robert D.; Arendt, Randall G.; Dodson, Harry L.; Brabec, Elizabeth A.

Cambridge, MA: The Lincoln Institute of Land Policy and the Environmental Law Foundation, 1988, 182 pp.

ANNOTATION The Center for Rural Massachusetts at the University of Massachusetts developed an award-winning design manual to deal with the problem of the disappearance of farms, scenic views, and centuries-old local character in the Connecticut River Valley in Massachusetts. Conventional and creative development approaches are compared using sketches of eight actual rural areas. Specific tools to help integrate new construction into traditional rural landscapes are offered, such as model ordinances, site plan review, sign control, protective strategies for riverfronts and lakefronts, farmland and open space protection, and roadside corridors. There are 48 full-page color plates. This manual is an approach to "rural landscape planning" that could be the critical element in a rural region's tourism development strategy.

SOURCE Publishers Business Service, P.O. Box 447, Brookline Village, MA 02147. Phone [illegible] (outside Massachusetts) or [illegible]. $20.00. Massachusetts residents add $1.[illegible].

DOC. NO. 717 Materials on assessing community tourism potential

Moscow, ID: Department of Wildland Recreation Management, College of Forestry, Wildlife, and Range Sciences, University of Idaho

ANNOTATION There are two very interesting publications that were prepared to assist northern Idaho communities plan and implement tourism programs that would be quite useful in any rural area. They are:

- *An Approach to Assessing Community Tourism Potential*, by C. C. Harris, S. E. Timko, and W. J. McLaughlin, [illegible], [illegible] pp., $[illegible]. This report is actually a series of four reports, one for each of four communities. Each describes the results of an evaluation process, community assessment, and recommended action plan.

- *Idaho Rural Tourism Primer: A Tourism Assessment Workbook*, by J. B. Rundell, W. J. McLaughlin, and C. C. Harris, 1989, 36 pp., $5.50. This booklet introduces the tourism industry in a nontechnical fashion to communities that are just beginning to consider tourism development. It is in a workbook format, and almost all of it would be highly useful in any rural area.

SOURCE Department of Wildland Recreation Management, College of Forestry, Wildlife, and Range Sciences, University of Idaho, Moscow, ID 83843. Phone 208-885-7911. Prices are noted above.

DOC. NO. 718 *Rural Tourism Marketing*

Rural Tourism Center

Chico, CA: Northern California Higher Education Council, 1987, 130 pp.

ANNOTATION This handbook takes the reader through the tourism marketing process from assessment to implementation, within the special conditions of rural communities. There are six sections. Section I, Inventory, focuses on rural communities and their tourism potential. Section II, Assessment, assists in identifying potential visitors. Section III, Marketing Plan, is a step-by-step format for creating a marketing document. Section IV, Promotion, spotlights tools and techniques for implementing marketing strategies. Section V, New Business, introduces meetings, retreats, and conferences as potential sources of revenue. Section VI, Resources, suggests contacts, organizations, and publications. The publication is written for California communities but would be very useful in most rural areas.

SOURCE Rural Tourism Center, Northern California Higher Education Council, California State University, Chico, CA 95929-[illegible]. Phone 916-895-[illegible]. Free.

DOC. NO. 719 "Protecting the Land and Developing the Land—How Can We Do Both?"

Spohn, Larry

North Carolina Insight, Vol. 10, No. 2-3 (March 1988): 94-106, 13 pp.

ANNOTATION Where natural beauty and rural tradition are the cornerstones of tourism and development strategies, rural areas would do well to encourage a broad conservation ethic that begins at the state level. This article explores North Carolina's experience since the early 1970s, which has seen the state shift from being a national leader in state-level actions to protect the environment, to expanding local government's control as major national investors moved into the state. Policy options discussed included statewide land use standards, watershed protection districts, restricted zoning districts to protect unique land resources or features, and improved land use information and analysis.

SOURCE Library, or for a $[illegible] handling charge, write to Midwest Research Institute, Economics Reference Center, 425 Volker Boulevard, Kansas City, MO 64110. Phone 816-753-7600.

DOC. NO. 720 *At Your Service! A Hospitality Training Program*
Center for Entrepreneurial Resources
Muncie, IN: Ball State University, 1989, 69 pp. plus video

ANNOTATION This notebook and accompanying video do a very good job of introducing the concept of community hospitality and its importance in tourism development. The program is designed as a two-hour training module to be delivered by any community organization or business. The suggestions are straightforward and well presented. The program could be a useful component of the tourism action plan of a rural area.

SOURCE Center for Entrepreneurial Resources, Carmichael Hall, Room 201, Ball State University, Muncie, IN 47306. Phone 317-285-1588. Within Indiana, phone 1-800-541-9313. Cost of the program in Indiana is $195.00. Out of state, the cost is $230.00.

DOC. NO. 721 *Tourism Network Directory for the 14-County North Country Region of New York State*
Tourism Management Skills Development Center, Paul Smith's College
Lake Placid, NY: Adirondack North Country Association, 1989, 15 pp.

ANNOTATION This directory was prepared to enhance coordination of the efforts of regional, state, local, and nonprofit organizations associated with tourism marketing in this rural region. The directory identifies agencies, addresses, phone numbers, and key contact people. It is a good model for other rural regions to consider.

SOURCE Adirondack North Country Association, Saranac Avenue, Box 148, Lake Placid, NY 12946. Phone 518-523-9820. Free.

DOC. NO. 600 *Increasing Wildlife on Farms and Ranches*

Henderson, F. Robert, editor

Manhattan, KS: Cooperative Extension Service, Kansas State University, 1984, 572 pp.

ANNOTATION Nearly 100 wildlife and agricultural professionals worked over a three-year period to prepare this handbook. It is an authoritative wildlife habitat reference for the prairie grassland area of the Great Plains. Chapters 1 and 2 cover the basics of wildlife management and habitat management for rangeland, farmland, woodland, and water areas. Chapter 3 gives specific guidelines for increasing many species of pond fish, waterfowl, upland game birds, small game animals, big game, furbearers, songbirds, and endangered species. Chapter 4 discusses economic returns for landowners: questions to consider, strategies, bringing landowners and leases together, and liability questions. There is also a description of habitat programs available in Colorado, Kansas, Montana, Nebraska, the Dakotas, Oklahoma, and Texas. The appendices include model legislation on access, liability, and trespass; model lease agreements; and selected state statutes on landowner liability. The publication would be a very valuable reference in preparing a wildlife development strategy.

SOURCE Wildlife Habitat Handbook, 129 Call Hall, Kansas State University, Manhattan, KS 66506. Phone 913-532-5654. $27.00. Make check payable to Kansas State University.

DOC. NO. 601 Materials on wildlife as a business

Colorado State University Cooperative Extension

Fort Collins, CO: Colorado State University Cooperative Extension

ANNOTATION The *Wildlife and Recreation Workbook* (Bulletin XCM-117, 1988, 12 pp.) was prepared to help farmers and ranchers decide whether to begin a hunting, fishing, or other type of recreation program and to lay the groundwork for future decisions. The work sheets encourage the reader to question the feasibility of proposed wildlife and recreation ventures, costs and returns, and the competition. Some decision-making criteria are suggested, and several points to remember if recreational leasing is being considered are offered. A suggested format for a wildlife management plan is also given.

Service in Action is a newsletter published by Colorado State University Cooperative Extension. A few publications of special interest to those considering a wildlife development strategy include:

6.301 Managing Recreation on Private Land
6.514 Wildlife as a Farm and Ranch Business
6.512 Farming and Pheasants in Colorado

Also, *Supplemental Income From Wildlife on Your Land* is a brochure that summarizes hunting management options. *Managing Potholes* is a pamphlet encouraging lease hunting.

SOURCE Bulletin Room, Colorado State University, Fort Collins, CO 80523. Phone 303-491-6198. $2.00.

DOC. NO. 602 Set of materials on natural resources management and income opportunities

Morgantown, WV: West Virginia University Extension Service

ANNOTATION In April 1989, the "First Eastern U.S. Conference on Income Opportunities for the Private Landowner Through Management of Natural Resources and Recreational Access" was held at West Virginia University. The purpose of this conference was to discuss alternatives for increasing profits for farmers, woodlot owners, rural landowners, businesses, and communities through the provision and marketing of nontraditional products and services from renewable natural resource-based activities. Sections addressed the future for fee access activities (demand and supply considerations); alternative enterprises (wildlife-associated recreation and nonwildlife-associated activities); resource management and business management considerations; marketing; legal issues; and potential sources of support.

As a result of the conference, a series of 30 publications dealing with natural resource management and income opportunities are expected to be available by the end of 1990. Information available as of March 1990 included:

- "Fish and Wildlife Management: Evaluating Habitat" (Byford, James L.), RD 750. This is one of the first in the 30-part series. It provides a very good summary of habitat management for increasing rabbits, quail, doves, squirrels, grouse, turkeys, deer, and wood ducks. An exercise on evaluating wildlife income potential is provided. $3.00.
- "Proceedings of the First Eastern U.S. Conference on Income Opportunities for the Private Landowner Through Management of Natural Resources and Recreational Access" (Grafton, William; Ferrise, Anthony; Colyer, Dale; Smith, Dennis; Miller, Jim), which includes the 45 papers presented (414 pp.) at $21.50 a copy. A 30-page executive summary of the proceedings is also available at no charge while supplies last. Ask for RD 739.
- A 25-minute videotape of conference highlights, $15.00 per copy.
- "Statutory Trespass/Liability Law in the Eastern United States," $3.50 per copy.

SOURCE William Grafton, Extension Specialist-Wildlife, West Virginia University, P.O. Box 6125, Morgantown, WV 26506-6125. Phone 304-293-4797. Checks should be made payable to the West Virginia University Foundation Inc.

DOC. NO. 603 *Managing Your Farm for Lease Hunting and a Guide to Developing a Hunting Lease*

Belt, Dean C.; Vaughn, Gerald

Newark, DE: Delaware Cooperative Extension, University of Delaware, Bulletin No. 147, 1988 (revised), 16 pp.

ANNOTATION An estimated $3.8 million was paid to private landowners in 1985 for hunting privileges on Delaware lands. This publication was prepared to assist more landowners increase their incomes from the hunting experience. The text briefly discusses advertising, pricing, safeguards, and technical assistance. A general description of the various sections of a lease and a sample lease are provided.

SOURCE Delaware Cooperative Extension, College of Agricultural Sciences, University of Delaware, Townsend Hall, Newark, DE 19717-1303. Phone 302-451-2506. $2.00 prepaid. Make check payable to the University of Delaware.

DOC. NO. 604 Materials on utilizing wildlife resources

Mississippi State, MS: Mississippi Cooperative Extension Service

ANNOTATION Two useful publications are:

- *Landowner's Guide to Working With Sportsmen in Mississippi*, by E. J. Jones, Pub. No. 1538, 8 pp. This guide was prepared because private landowners can gain additional income and better security (among other benefits) by working positively with responsible recreationists in permitting access to their lands. The publication discusses liability, ethical conduct, managing access, and dealing with trespass. A sample lease agreement is included. The publication references Mississippi law, but most of the material would be useful in any state.
- *Becoming a Cooperative Landowner for Wildlife and Forestry*, by G. K. Yarrow, Pub. No. 1637, 4 pp. This bulletin encourages forest landowners to form cooperatives with adjoining neighbors in order to more fully benefit from their wildlife and forestry resources. Brief discussions on organizing and management of a cooperative and income opportunities are given.

Both publications would be useful for development organizations pursuing wildlife enterprises.

SOURCE Department of Wildlife and Fisheries, Mississippi Cooperative Extension Service, Box 5446, Mississippi State, MS 39762. Phone 601-325-3174. Free.

DOC. NO. 605 *Developing Hunting Enterprises on Private Lands*

Wilkins, R. Neal

Knoxville, TN: Cooperative Extension Service, University of Tennessee, PB 1305, undated, 11 pp.

ANNOTATION Many landowners can benefit from the abundance of deer and the popularity of deer hunting. This publication discusses different types of fee-hunting arrangements, marketing the hunting opportunity, written agreements and permits, and liability. A sample annual hunting lease, short-term agreement, and hunting access permit are included. The material would be very useful for wildlife recreation development efforts in any state.

SOURCE Department of Forestry, Wildlife and Fisheries, University of Tennessee, P.O. Box 1071, Knoxville, TN 37901-1071. Phone 615-974-7126. Free.

DOC. NO. 606 Materials on leasing land for hunting in the South and Southeast

Gainesville, FL: Florida Cooperative Extension Service, University of Florida.

ANNOTATION Two publications are available on leasing land for hunting, an increasingly popular option for landowners in the South and Southeast.

The first publication, *Hunting Lease Arrangements in Florida and the Southeast*, by W. Marion and C. Gates (Circular 793, undated, 19 pp.), explores the historical trends toward private leasing operations, different leasing arrangements in use in the Southeast, the impact of leasing on wildlife habitat, landowner concerns, establishing a lease, and the results of a survey of landowners in Florida who leased hunting rights.

Of particular interest is a table with examples (three to eight years ago) of lease prices in several southern states for a variety of game species. The publication would be of value to wildlife development efforts in any state. The 22-question hunting lease questionnaire is included, as is a good set of references.

Developing a Hunting Lease in Florida, by W. Marion and J. Hovis (WRS 1, 1985, 3 pp.), is a concise review of the major considerations for landowners in deciding to prepare and then draft a lease document.

SOURCE Institute of Food and Agricultural Sciences, Building 664, University of Florida, Gainesville, FL 32611. Phone 904-392-1764. Ask for Circular 793 and WRS 1. Single copies are free.

DOC. NO. 607 *Fee Hunting—Extra Income?*

Bassett, Barbara; Freiling, Deretha

Columbia, MO: Cooperative Extension, University of Missouri-Columbia, MP 635, undated, 20 pp.

ANNOTATION This is one of the more detailed publications on the subject of fee hunting. Part I discusses the growing market for hunting leases, fee hunting in other states, fee hunting in Missouri, and the advantages and drawbacks of such an enterprise. Part II outlines the basic steps to be taken in starting a lease hunting operation: evaluating property, developing a lease, liability, marketing, and wildlife management. The report is very well written and includes an information list on shooting preserves, references, and two model lease agreements.

SOURCE Extension Publications, University of Missouri-Columbia, 115 South Fifth Street, Columbia, MO 65211. Phone 314-882-7216. Free.

DOC. NO. 608 Set of papers on wildlife production on private lands

Fitzhugh, E. Lee

Davis, CA: University of California Cooperative Extension

ANNOTATION Papers of interest include:

- "What Can We Learn From California's Ranching for Wildlife Program?" (1988). Much of this author's work discusses California's Ranching for Wildlife program that allows a private landowner or consortium of contiguous landowners, having paid a licensing fee, to write a wildlife management plan for their property. If approved, the plan allows landowners to charge an access fee and gives them flexibility to set bag limits, sex of harvest, and season dates that are different from statewide regulations. It also allows landowners to distribute tags outside the public drawing process.

- "Innovation of the Private Lands Wildlife Management Program: History of Fee-Hunting in California" (1989).
- "Hunter's Attitudes in California Compared With Fees and Expenditures for Private Lands Hunting" (1987).
- "Developing a Habitat Management Plan for Private Land" (1984).
- "Guidelines for Management Plans on Private Lands" (1982).

These papers and materials from the California Department of Fish and Game (DFG) describing the Ranching for Wildlife program could be very valuable in other states as well.

SOURCE E. Lee Fitzhugh, University of California Cooperative Extension, Davis, CA 95616. Phone 916-752-2536. Free. For DFG information on the Ranching for Wildlife program, contact Ken Mayer, California Department of Fish and Game, 1416 Ninth Street, Sacramento, CA 95814. Phone 916-445-5561.

DOC. NO. 609 Set of papers on wildlife resources for recreation enterprises

Trans. 54th N.A. Wildl. and Nat. Res. Conf. (1989)

ANNOTATION There are numerous papers in the *Transactions of the 54th North American Wildlife and Natural Resources Conference* that pertain to economic benefits to landowners from consumptive and nonconsumptive uses of wildlife. Two examples include:

a. "Overview of Fee Hunting for Deer and Elk on Private Land in Utah" by Lucy A. Jordan and John P. Workman (6 pp.). This paper reports on a survey of Utah landowners providing fee hunting opportunities. Findings reflect the alternative management approaches and the ways in which landowners differentiated their enterprises from opportunities available on public land.

b. "Financial Returns to California Landowners for Providing Hunting Access: Analysis and Determinants of Returns and Implications to Wildlife Management" by John B. Loomis and Lee Fitzhugh (6 pp.). This paper discusses results of interviews of 73 owners of fee hunting enterprises. The interviews determined the factors most important in affecting revenues were hunter success rates and the opportunity to harvest trophy animals.

These and other papers from the referenced *Transactions* would be important literature for review in working to encourage more hunting-related enterprises in rural areas.

SOURCE For the *Transactions*, contact your State University library or the Wildlife Management Institute, 1101 14th Street NW, Suite 725, Washington, DC 20005. Phone 202-371-1808. For copies of the above-referenced papers, contact (a) John Workman, Range Science Department, Utah State University, Logan, UT 84322-5230, Phone 801-750-2541, $1.00 for a reprint; (b) John Loomis, Division of Environmental Studies, University of California, Davis, CA 95616, Phone 916-752-0523, reprints are free.

DOC. NO. 610 *Improving Access to Private Land—A Path to Wildlife*

Wildlife Management Institute

Washington, DC: Wildlife Management Institute, undated, 15 pp.

ANNOTATION This booklet was developed for use by state wildlife agencies to encourage greater wildlife production and increase access to wildlife on private lands.

Strategies to compensate landowners for increasing wildlife and hunting opportunities are summarized. Programs in Michigan, Wisconsin, North Carolina, Colorado, Indiana, and Pennsylvania are briefly mentioned. Suggested model state legislation is included to ease the liability concerns of private landowners and to streamline recreational trespass enforcement.

The booklet would be useful to any group working with its state to improve wildlife-related recreational enterprise opportunities.

SOURCE Wildlife Management Institute, Suite 725, 1101 14th Street, NW, Washington, DC 20005. Phone 202-371-1808. $1.00.

DOC. NO. 611 *Income From Hunting Leases*

Busch, Frederick

Clemson, SC: Clemson University, Cooperative Extension Service, Information Leaflet 32, 1989, 2 pp.

ANNOTATION This flyer describes types of hunt leases in South Carolina and ways to improve conditions for wildlife when harvesting timber on farm woodlands. Advantages and constraints to be considered in beginning a hunt lease enterprise are also summarized.

SOURCE Department of Aquaculture, Fisheries and Wildlife, Clemson University, Clemson, SC 29634-0362. Phone 803-656-7370. Free.

DOC. NO. 612 Proceedings of the First Symposium on Fee Hunting on Private Lands in the South

Yarrow, Greg, editor

Clemson, SC: Clemson Cooperative Extension Service, 1990, pp.

ANNOTATION These proceedings report on a July 23-25, 1989, Symposium. Sessions addressed (1) general considerations of fee hunting, quality recreation, landowner cooperatives, marketing the hunting experience, and liability; (2) wildlife agency considerations such as educational programs, alternative farm income, and trespass laws; and (3) forest industry and landowner considerations in valuing wildlife habitat, fee hunting, and wildlife enterprises. While the Symposium focused on the South, some of the trends observed there may well be what other regions will wish to emulate. The material would be useful for local or regional groups formulating a wildlife enterprise development strategy.

SOURCE Department of Aquaculture, Fisheries and Wildlife, Clemson University, Clemson, SC 29634-0362. Phone 803-656-7370. Inquire as to price.

DOC. NO. 613 *Waterfowl Hunting Business Conference*

Payne, Jack, editor

Corpus Christi, TX: Texas Agricultural Extension Service, 1987, 70 pp.

ANNOTATION This compendium of papers covers most aspects of waterfowl leasing, including specific advice on marketing strategies for lease-fee hunting; land management; and liability considerations. It was written for waterfowl leasing in Texas, but much of the advice on the business of such recreation enterprises would be useful for any waterfowl area.

SOURCE Texas Agricultural Extension Service, Route 2, Box 589, Corpus Christi, TX 78410. Phone 512-265-9203. $10.00. A second conference is planned for September 1990.

DOC. NO. 614 *Hunting Preserves for Sport or Profit*

Kozicky, Edward L., editor

Kingsville, TX: Caesar Kleberg Wildlife Research Institute, 1987, 210 pp.

ANNOTATION This is an extensive how-to reference book for preserve operators or those considering hunting preserves. Chapters 1-6 cover the hunting preserve concept, its history, different types of preserves, keys to success, the preserve operator's role, and game bird behavior. Chapters 7-13 focus in on specific techniques for using ring-necked pheasants, bobwhite quail, mallards, chukar partridge, hungarian partridge, wild turkey, and exotic big game. Chapters 14-21 discuss cover, guides and dogs, predators, profitability, promotion, safety, processing game birds, and game bird disease. The book would be excellent for cooperatives or individuals exploring the feasibility of hunting preserves.

SOURCE Caesar Kleberg Wildlife Research Institute, College of Agriculture, Texas A&I University, Campus Box 218, Kingsville, TX 78363. Phone 512-595-3922. $24.95 (Texas residents add $1.75 sales tax). Make check payable to Texas A&I University.

DOC. NO. 615 *Using Natural Resources and Recreation to Revitalize Wayne County*

Wilkins, R. Neal; Burress, Ken

Jackson, TN: University of Tennessee Agricultural Extension Service, 1988, 4 pp.

ANNOTATION This paper was presented to the West Tennessee Rural Revitalization Conference held in October 1988 in Martin, Tennessee. It relates the experience of a group of landowners in rural Wayne County, Tennessee, who are attempting to market hunting rights and other recreation on their property. The Wayne County Forest Landowners Association (WCFLA) was formed by six farmers representing 5,000 acres and was incorporated in January 1988. The WCFLA's program to control illegal hunting and trespassing and develop good public relations resulted in an increase in the association's membership to over 20 landowners and over 15,000 acres. The WCFLA is now working with professional foresters to help produce timber marketing and management plans for members as well. The concept is an excellent one for other rural areas to consider.

SOURCE R. Neal Wilkins, Department of Forestry, Wildlife and Fisheries, University of Tennessee Agricultural Extension Service, 605 Airways Boulevard, Jackson, TN 38301-3201. Phone 901-422-1583. Free. Also ask about the video that highlights WCFLA.

DOC. NO. 616 *Big Game Ranching in the United States*

White, Ronald J.

Mesilla, NM: Wild Sheep and Goat International, 1986, 355 pp.

ANNOTATION This is a comprehensive reference book on the problems and opportunities of big game ranching. Chapters address big game animals as a source of meat; considerations for exotic introductions; range management; herd management; the relationships of range, wildlife, and livestock management; parasites and diseases; legal issues; facilities and techniques; and commercial and business considerations. Nine appendices give technical information on bison, exotic big game, sources of equipment, rural zoological parks, and hunting leases, among other subjects. The focus of the book is wise use of our renewable natural resources. Landowners contemplating big game ranching will find this an invaluable reference.

SOURCE Wild Sheep and Goat International, P.O. Box 244, Mesilla, NM 88046. $31.95 (New Mexico residents add $1.70 sales tax).

DOC. NO. 617 *Recreation on Rangelands: Promise, Problems, Projections—Symposia Proceedings of the Society for Range Management*

Rollins, Dale, editor

Corpus Christi, TX: Society for Range Management, 1988, 82 pp.

ANNOTATION The symposium reported in this proceedings was designed to acquaint range managers with the dynamic nature of recreation on rangelands. The papers presented offer suggestions that could benefit producers and consumers while protecting the natural resource. Topics include assessing and marketing ranch recreation, fee-hunting on public lands, and integrating public and private concerns for managing wildlife and hunters. The papers are thoughtful and well written, and encourage a new way of looking at rangelands as rural assets.

SOURCE Department of Range and Wildlife Management, Texas Tech University, Lubbock, TX 79409. Phone 806-742-1983. $10.00.

DOC. NO. 618 *Developing Profitable Resource-Based Recreation on Private Land—Proceedings of the 1987 Pacific Northwest Range Management Short Course*

Bedell, Thomas E.; Rasker, Ray, editors

Corvallis, OR: Extension Service, Oregon State University, 1987, 177 pp.

ANNOTATION This proceedings publication contains about 30 papers on resource-based recreation on private lands.

Five sections are presented: assessing opportunities and constraints, state wildlife management programs on private land, information needed to develop recreation income potential, the business side of recreation enterprises, and using information to develop recreation potential. The proceedings were organized for a landowner and Extension Service audience. The transcripts of landowner presentations—e.g., types of hunting enterprises, leasing land for big game hunting, cooperative agreements, panel discussions—would be especially useful for groups exploring resource-based recreation enterprises.

SOURCE Department of Rangeland Resources, Oregon State University, Corvallis, OR 97331. Phone 503-737-3341. $10.00.

DOC. NO. 619 *Wildlife and Recreation Management on Private Lands—A Guide for Washington*

Pineo, Doug

Olympia, WA: Washington Forest Protection Association, 1985, 90 pp.

ANNOTATION This publication was prepared as a guide to allow landowners to assess the potential for wildlife enhancement in financially feasible ways. Chapters address resource management constraints and opportunities, case studies in fee access, recreation management and marketing strategies, working with the public and government, liability and legalities, wildlife enhancement, rangeland wildlife management, farmland wildlife management, and pond and stream management for fish. Appendices include a sample permit lease and liability release agreement.

SOURCE Washington Forest Protection Association, 711 Capitol Way, Evergreen Plaza Building, Suite 608, Olympia, WA 98501. Phone 206-352-1500. Free; very limited supply. Or you may contact the Economics Reference Center, Midwest Research Institute, 425 Volker Boulevard, Kansas City, MO 64110. Phone 816-753-7600. $10.00.

DOC. NO. 620 *A Wildlife Planning Process for Private Landowners*

Svoboda, Franklin J.

Wildlife Society Bulletin 8 (1980): 98-104

ANNOTATION This paper suggests steps for private landowners to use in preparing a wildlife management plan. The nine steps are establishing a goal; completing an inventory; analyzing the data; establishing objectives; preparing management recommendations; analyzing economic factors; producing a plan; implementation; and monitoring the results. While the paper was written 10 years ago, the process it outlines is still valid and a useful reference for those interested in increasing wildlife resource opportunities while ensuring resource renewal.

SOURCE Library, or for a $5.00 charge contact the Economics Reference Center, Midwest Research Institute, 425 Volker Boulevard, Kansas City, MO 64110. Phone 816-753-7600.

DOC. NO. 621

Annual Proceedings of the International Ranchers Roundup

White, Larry D.; Trokel, Tom R., editors

Uvalde, TX: Texas A&M University, Texas Agricultural Research and Extension Center, 1981-present, approximately 300 pp. each proceeding

ANNOTATION

The International Ranchers Roundup (IRR) is an annual conference coordinated by the Texas Agricultural Extension Service staff. Categories for presentations typically include beef cattle, range management, wildlife management, water management, and ranch business management. Presentations on ranch business management, range management, and wildlife management include many papers on diversification opportunities, particularly lease hunting and other rangeland recreation.

SOURCE

Texas A&M University, Texas Agricultural Research and Extension Center, P.O. Box 1849, Uvalde, TX 78802-1849. Phone 512-278-9151. A summary of the Table of Contents for the 1982-1988 International Ranchers Roundup Proceedings is free. The proceedings cost as follow: 1982-1986, $5.00; 1987, $20.00; 1988, $30.00.

DOC. NO. 622

Private Recreation on Agricultural Land: Fee-Based Hunting and Fishing—A Dialog Search

Rural Information Center

Beltsville, MD: National Agricultural Library, U.S. Department of Agriculture, 1990, approx. 30 pp.

ANNOTATION

A Dialog search from the Agricola and other agricultural data bases turned up over 40 literature citations. Most were current; a few referenced projects in progress. A 1990 search is recommended also because the field of fee-based recreation on private lands had been rapidly expanding.

SOURCE

Rural Information Center, National Agricultural Library, U.S. Department of Agriculture, Beltsville, MD 20705. Phone 301-344-2547. Free.

DOC. NO. 623

Agriculture and Wildlife video series

Kansas State University Cooperative Extension Service

Manhattan, KS: Kansas State University, Cooperative Extension Service, 1989, three volumes

ANNOTATION

This very good three-part series, *Agriculture and Wildlife*, was sponsored by the U.S. Fish and Wildlife Service and the Great Plains Agricultural Council. Material covered includes:

Volume 1 (60 minutes)

- Conservation Reserve Program (21 minutes)
- Principles of wildlife management (13 minutes)
- Field borders and odd areas (10 minutes)
- Winter food plots (8 minutes)
- Grazing management—a new look at an old idea (10 minutes)

Volume 2 (53 minutes)

- Stock ponds and waterfowl
- Saving soil moisture and creating nesting cover by undercutting (13 minutes)

- Streamside woodlands (8 minutes)
- Saving grain and wildlife through root pruning (13 minutes)
- Wetland restoration for the good of agriculture and wildlife (13 minutes)

Volume 3 (30 minutes)

- Supplementing farm and ranch income with wildlife

The set would be an excellent reference tool to use with groups of landowners interested in wildlife-based enterprise development. A fourth tape, *Agriculture and Wildlife: An Overview*, presents a 55-minute satellite conference discussing the importance of private land to wildlife resources, ways to enhance wildlife, and the opportunities in the Conservation Reserve Program to increase wildlife populations.

SOURCE Extension Communications, Room 20, McCain Auditorium, Kansas State University, Manhattan, KS 66506-4701, Attention "Steve Ballou." Phone 913-532-5851. Each of the four tapes is $25.00.

ADDITIONAL NOTE

The following publications were received too late for inclusion in the bibliography but are very good resources.

Weaver, Glenn, *Special Events—Guidelines for Planning and Development*, 1989, 48 pp. Also *Inventorying the Tourism Package*, undated, 39 pp. Both are available from the Department of Parks, Recreation and Tourism, University of Missouri-Columbia, 613 Clark Hall, Columbia, MO 65211. Phone 314-882-3085. $10.00 for *Special Events*; $1.00 for *Inventorying*. Orders must be prepaid; checks should be made out to the University of Missouri.

VIII. Selected Periodicals for Rural Economic Development Through Natural Resources

VIII. SELECTED PERIODICALS FOR RURAL ECONOMIC DEVELOPMENT THROUGH NATURAL RESOURCES

The periodicals and newsletters listed in this section (about 15) represent a diversity of subject areas, types of information, and sources of ideas. The listing gives examples; it was not meant to be comprehensive by any means. The newsletters, magazines, gazettes, and bulletins are good starting points for rural development facilitators. Several were selected because they represent useful models for rural regions or states to consider.

SELECTED PERIODICALS

Doc. No.	Title	Type
800	*Tomorrow's Harvest*	Newsletter
801	*Rural Enterprise*	Business and News magazine
802	*Successful Farming*	Farm magazine
803	*The New Farm*	Farm magazine/low input farming
804	*Extension Review*	Periodical
805	*Agri Life Line*	Newsletter/diversification
806	*WRDC Newsletter* and *Plowsharing*	Newsletters
807	*Texas Gazette*	Newspaper/newsletter
808	*The Workbook*	Catalog
809	*RC&D Forestry News*	Newsletter
810	*Woodland Owners Newsletter*	Newsletter
811	*NEFA News*	Newsletter
812	*The Lake States Forestry Newsletter*	Newsletter
813	*Forest Industry Marketing Bulletin*	Newsletter
814	*Forests and Lands*	Newsletter

Subject areas included are shown below.

Agricultural diversification

800 803 806
801 804 807
802 805 808

Marketing

800 803 813
801 807
802 811

Conservation

803 809 814
806 810
808 812

Value-added agribusiness

801 803 807
802 804 808

Alternative forest enterprises

805 810
809 812

Forest land management

809 811 814
810 812

Home entrepreneurship

800

Recreation enterprises

800 812

Resource assessment

800 811
804 814

Business planning

800 807

Tourism development

801

Cooperatives

801 802 808

Community development

804 807 808

Organizing

808

Wood products

809 811
810 812

Secondary manufacturing

809 811

Education

804 810 814

Wildlife management

810 812 814

DOC. NO. 800 *Tomorrow's Harvest*

Statler, Larry, director

Cedar Rapids, IA: Rural Development Center, Kirkwood Community College, 4 pp./issue

This is a new newsletter that provides information about the Rural Development Center's programs, written primarily for rural families in Iowa. Articles are useful indicators of the vision needed to achieve agricultural diversification throughout the Midwest's rural areas.

SOURCE Rural Development Center, Building 31, Kirkwood Community College, 6301 Kirkwood Boulevard SW, P.O. Box 2068, Cedar Rapids, IA 52406. Phone 319-398-5699. Free. Issued three times per year.

DOC. NO. 801 *Rural Enterprise*

Ohm, Karl F., III, editor

Menomonee Falls, WI: *Rural Enterprise*, approx. 32 pp./issue

This is a business and news magazine for rural direct marketers. There are generally four to five articles on farm success stories, new developments, and emerging new market niches plus reviews of meetings, publications, news, and information. It is an excellent source of technical assistance ideas on direct marketing as well as ag diversification strategies. It is a publication of the National Farmers' Direct Marketing Association.

SOURCE *Rural Enterprise*, P.O. Box 878, Menomonee Falls, WI 53051. Phone 414-255-0100. $8.95/year (four issues) or $15.95/two years (eight issues).

DOC. NO. 802 *Successful Farming*

Kruse, Loren, editor

Des Moines, IA: *Successful Farming*, approx. 68 pp./issue

This is a major farm magazine that regularly carries good articles on diversification ideas and opportunities.

SOURCE Customer Service Manager, P.O. Box 10255, Des Moines, IA 50336. Phone 1-800-678-2666. $12.00/year (12 issues).

DOC. NO. 803 *The New Farm*

Emmaus, PA: *New Farm*, approx. 48 pp./issue

This magazine is dedicated to "putting people, profit, and biological permanence back into farming by giving farmers the information they need to take charge of their farms and their futures." It is a magazine for farmers desiring to use fewer pesticides, fertilizers, and other purchased inputs.

SOURCE Circulation Director, *The New Farm*, 222 Main Street, Emmaus, PA 18098-0014. Phone 215-967-5171. $15.00/year (seven issues). Inquire about subscriptions at reduced rates for County Extension offices.

DOC. NO. 804 *Extension Review*

Calvert, Patricia, editor

Washington, DC: USDA, Extension Service, approx. 50 pp./issue

This is a quarterly publication of the Extension Service for Extension educators. Themes of past issues include alternative agricultural opportunities, conservation and management of natural resources, economic development, and rural revitalization. The articles give a broad overview of diverse programs being tried in different areas of the country.

SOURCE Free to those connected with the Extension Service or the media. Contact the Editor, Extension Service, USDA, Communication, Information, and Technology Staff, Room 33265, South Building, Washington, DC 22050. Phone 202-447-4651. Others should contact the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402-9371. Phone 202-783-3238. $10.00 (four issues/year). Ask for Stock No. 701-018-00000-1.

DOC. NO. 805 *Agri Life Line*

Nelson, Irene, editor

Burlington, IA: Geode Specialty Growers Association, 11 pp./issue.

This publication is a good example of a regional newsletter directed toward rural landowners who are involved in diversification efforts. The emphasis in the newsletter is on shiitake mushrooms, but a variety of other alternative crops are also discussed; for example, timber and crafts. The newsletter makes a special effort to inform readers of the assistance available from the local Resource Conservation and Development District.

SOURCE Geode Specialty Growers' Association, 3002-A Winegard, Burlington, IA 52601. Phone 319-753-6143. $10.00/year (four issues per year).

DOC. NO. 806 *Wisconsin Rural Development Center Newsletter* and *Plowsharing*

Jackson, Mary, editor

Black Earth, WI: Wisconsin Rural Development Center, 4 pp. (*Center*); 2 pp. (*Plowsharing*).

Both of these newsletters are written for farmers and rural leaders. They emphasize the linkages between agriculture and rural communities. The first newsletter reports on the Center's projects to carry out leadership development, policy research, and demonstration projects in rural Wisconsin. *Plowsharing* is dedicated to providing news on sustainable agriculture. Both are good examples of networking style newsletters to tie landowners together in their search for new solutions.

SOURCE Wisconsin Rural Development Center, P.O. Box 504, Black Earth, WI 53515-0504. Phone 608-767-2539.

DOC. NO. 807 *Texas Gazette*

Welch, Andy, editor

Austin, TX: Texas Department of Agriculture, approx. 4 pp./issue (newsprint sized)

The Texas Department of Agriculture is one of the most forward-looking of the state departments of agriculture around the nation. This newsletter provides news of the state's diversified agricultural development efforts. It is a very good model; rural communities in other states would do well to request similar approaches.

SOURCE *Texas Gazette*, Texas Department of Agriculture, P.O. Box 12847, Austin, TX 78711. Phone 512-463-7476. Free.

DOC. NO. 808 *The Workbook*

Newton, Kathy, editor

Albuquerque, NM: Southwest Research and Information Center, approx. 48 pp./issue.

The Workbook is a catalog of sources of information. It is aimed at helping people gain control over their own lives. The publication routinely features natural resource-based success stories. For example, the January-March 1989 issue featured four case study examples of revitalizing Hispanic and Native American rural communities, including a sheep raising/wool weaving cooperative and a forest products association.

SOURCE Southwest Research and Information Center, P.O. Box 4524, Albuquerque, NM 87106. Phone 505-262-1862. Published quarterly. $12.00/year (individual); $8.50/year (students); $25.00/year (institutions).

DOC. NO. 809 *RC&D Forestry News*

Majeski, Mike, editor

St. Paul, MN: USDA Forest Service, Northeastern Area State and Private Forestry, approx. 10 pp./issue

This newsletter reports on subjects of interest to Resource Conservation and Development areas in the 20 states of the northeastern United States. Progress on forestry projects, forest product utilization, forest management, training opportunities, and rural development are included. It is a good example of a networking newsletter aimed at rural landowners with woodlands.

SOURCE Mike Majeski, RC&D Forestry Specialist, USDA Forest Service, Northeastern Area State and Private Forestry, 1992 Folwell Avenue, St. Paul, MN 55108. Phone 612-649-5240. Approximately two issues/year. Free.

DOC. NO. 810 *Woodland Owners Newsletter*

Ames, IA: Cooperative Extension Service, Iowa State University, 4 pp./issue

This newsletter is written for the private woodland owner in Iowa. It features timely information on forestry field days, forest expositions, new research, and new enterprise opportunities. It encourages better management of woodlands through planning and continuing education. It is a good model of a statewide newsletter for landowners.

SOURCE Forestry Extension, 251 Bessey Hall, Iowa State University, Ames, IA 50011. Phone 515-294-1168. Four issues/year. Free.

DOC. NO. 811 *NEFA News*

Latham, Cathy, editor

Augusta, ME: Northeastern Forestry Alliance, approx. 4 pp./issue

This newsletter is a publication of the Northeastern Forest Alliance (NEFA), a regional forestry organization that works with the states of Maine, New Hampshire, Vermont, and New York to create greater awareness of the Northeast's forest resources and expand resource management. The newsletter discusses regional marketing strategies; looks at key wood products and technological advances; and provides information on events, training opportunities, and legislation of interest.

SOURCE Northeastern Forestry Alliance, 86 Winthrop Street, Augusta, ME 04330. Phone 207-622-9132. Published quarterly. Free.

DOC. NO. 812 *The Lake States Forests Newsletter*

Erickson, Judith, coordinator

St. Paul, MN: Lake States Forestry Alliance, approx. 6 pp./issue

This is a publication of the Lake States Forestry Alliance, which represents Michigan, Minnesota, and Wisconsin. It seeks to provide broad-based leadership on the management of this region's forests. Education, resource assessment, and marketing are among the Alliance's goals, and the newsletter is a regional voice for forest-based economic development.

There is also a video, *Opportunities and Challenges for a Resources Renaissance* that provides an overview of the region's forest resources and their contribution to the region's economy, and introduces the purposes and goals of the Lake States Forestry Alliance.

SOURCE Lake States Forestry Alliance, E-1311 First National Bank Building, St. Paul, MN 55101. Phone 612-291-0353. Quarterly. Free.

DOC. NO. 813 *New Hampshire Forest Industry Marketing Bulletin*

Smith, Sarah, editor

Durham, NH: University of New Hampshire Cooperative Extension, approx. 4 pp./issue

This is a good example of a bulletin designed for the individual forest land manager or wood products manufacturer. Machinery and forest products for sale or wanted, upcoming events of interest, and general news on business opportunities in the forest industry are covered in each issue. It is a useful model for statewide networking.

SOURCE New Hampshire Forest Industry Marketing Bulletin, UNH Cooperative Extension, 108 Pettee Hall, University of New Hampshire, Durham, NH 03824. Phone 603-862-1028. Issued six times/year. Free.

DOC. NO. 814 *Forests and Lands*

Cullen, J. B., editor

Concord, NH: Department of Resources and Economic Development, Division of Forests and Lands, 4 pp./issue

This newsletter is directed toward the private forest landowner and provides news of state activities in forest land management, education opportunities for woodlot owners, advice on tree health and forest protection, and the status of the state's timber resources. It is a useful model for state networking.

SOURCE New Hampshire Division of Forests and Lands, Department of Resources and Economic Development, P.O. Box 856, Concord, NH 03301. Phone 603-271-3457. Free.

IX. Index

IX. INDEX

American Farmland Trust. *Planning and Zoning for Farmland Protection: A Community-Based Approach.* 1987. Doc. No. 511.

American Institute of Cooperation. *Cooperative Education: Resource Guide and Directory.* 1989. Doc. No. 533.

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California: Rural Tourism Center. *Rural Tourism Marketing.* 1987. Doc. No. 718.

California: University of California Cooperative Extension. Fitzhugh, E. Lee. Set of papers on wildlife production on private lands. 1982-1989. Doc. No. 608.

Canada: Alberta Tourism. Materials from Alberta's Department of Tourism. 1988. Doc. No. 704.

Colorado Department of Agriculture. Carlson, David, project coordinator. *Innovations—Sharing Approaches That Work.* 1986. Doc. No. 526.

Colorado: Rocky Mountain Institute. Maggos, Laura. *Marketing—How to Survive as a Small Farmer.* 1987. Doc. No. 529.

Colorado State University Cooperative Extension. Materials on wildlife as a business. 1988. Doc. No. 601.

Colorado: University of Colorado. Gadsby, Tricia; Long, Patrick. *Recreation and Tourism Resource Guide for Rural Colorado.* 1989. Doc. No. 709.

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Council of State Planning Agencies. Nothdurft, William E. *Renewing America.* 1984. Doc. No. 547.

Delaware: University of Delaware Cooperative Extension. Belt, Dean C.; Vaughn, Gerald. *Managing Your Farm for Lease Hunting and a Guide to Developing a Hunting Lease.* 1988. Doc. No. 603.

Florida: Cooperative Extension Service. Duryea, Mary L., editor. *Alternative Enterprises for Your Forest Land: Forest Grazing, Christmas Trees, Hunting Leases, Pine Straw, Fee Fishing, and Firewood.* June 1988. Doc. No. 403.

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